

=> fil reg  
FILE 'REGISTRY' ENTERED AT 17:16:48 ON 23 MAY 2007  
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STRUCTURE FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7  
DICTIONARY FILE UPDATES: 22 MAY 2007 HIGHEST RN 935655-41-7

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TSCA INFORMATION NOW CURRENT THROUGH December 2, 2006

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=> d 117 que stat
L5           SCR 2043
L7           STR
4
O
2
O~~P~~O~Ak
1  3   6
O
5
```

#### NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6  
DEFAULT MLEVEL IS ATOM  
GGCAT IS SAT AT 6  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1-X12 C AT 6

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

#### STEREO ATTRIBUTES: NONE

L10 28990 SEA FILE=REGISTRY SSS FUL L7 NOT L5
L11 STR

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4
O
2
O~~P~~O~Ak
1  || 3   6
O
5
```

## NODE ATTRIBUTES:

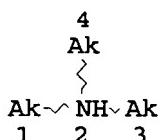
CONNECT IS E1 RC AT 6  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 6  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X12 C AT 6

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 6

## STEREO ATTRIBUTES: NONE

L13 SCR 2040  
 L15 STR



## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 1  
 CONNECT IS E1 RC AT 3  
 CONNECT IS E1 RC AT 4  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 1  
 GGCAT IS SAT AT 3  
 GGCAT IS SAT AT 4  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X5 C AT 1  
 ECOUNT IS M1-X5 C AT 3  
 ECOUNT IS M1-X5 C AT 4

## GRAPH ATTRIBUTES:

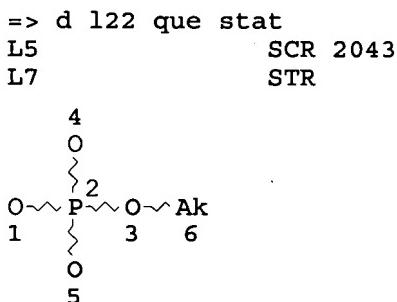
RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 4

## STEREO ATTRIBUTES: NONE

L17 0 SEA FILE=REGISTRY SUB=L10 SSS FUL L11 AND L15 AND L13

100.0% PROCESSED 1194 ITERATIONS  
 SEARCH TIME: 00.00.01

0 ANSWERS



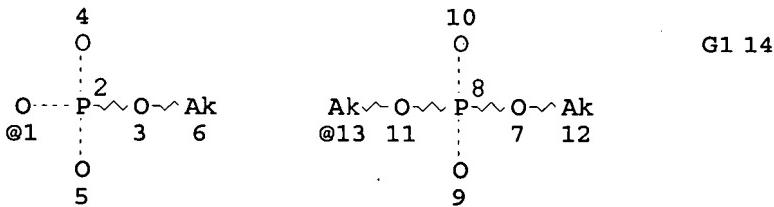
## NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 6  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X12 C AT 6

GRAPH ATTRIBUTES:  
 RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L10 28990 SEA FILE=REGISTRY SSS FUL L7 NOT L5  
 L20 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 6  
 CONNECT IS E1 RC AT 12  
 CONNECT IS E1 RC AT 13  
 DEFAULT MLEVEL IS ATOM  
 GGCAT IS SAT AT 6  
 GGCAT IS SAT AT 12  
 GGCAT IS SAT AT 13  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS M1-X12 C AT 6  
 ECOUNT IS M1-X12 C AT 12  
 ECOUNT IS M1-X12 C AT 13

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

L22 2924 SEA FILE=REGISTRY SUB=L10 SSS FUL L20

100.0% PROCESSED 7488 ITERATIONS  
 SEARCH TIME: 00.00.01

2924 ANSWERS

=> d his nofile

(FILE 'HOME' ENTERED AT 15:57:01 ON 23 MAY 2007)

L1 FILE 'HCAPLUS' ENTERED AT 15:57:08 ON 23 MAY 2007  
 1 SEA ABB=ON PLU=ON US2006155048/PN

L2 FILE 'REGISTRY' ENTERED AT 15:57:35 ON 23 MAY 2007  
 7 SEA ABB=ON PLU=ON (121-44-8/B1 OR 3138-43-0/B1 OR  
 36047-43-5/B1 OR 42610-78-6/B1 OR 79-10-7/B1 OR 79-41-4/B  
 I OR 9011-14-7/B1)

FILE 'LREGISTRY' ENTERED AT 15:57:43 ON 23 MAY 2007  
 L3 STR

FILE 'REGISTRY' ENTERED AT 16:03:57 ON 23 MAY 2007  
 L4 48 SEA SSS SAM L3  
 L5 SCR 2043  
 L6 50 SEA SSS SAM L3 NOT L5  
 L7 STR L3  
 L8 50 SEA SSS SAM L7  
 L9 50 SEA SSS SAM L7 NOT L5  
 L10 28990 SEA SSS FUL L7 NOT L5  
       SAV L10 TEMP SAS178/A

FILE 'LREGISTRY' ENTERED AT 16:18:18 ON 23 MAY 2007  
 L11 STR L7  
 L12 STR

FILE 'REGISTRY' ENTERED AT 16:20:17 ON 23 MAY 2007  
 L13 SCR 2040  
 L14 9 SEA SUB=L10 SSS SAM L11 AND L12 AND L13  
 L15 STR L12  
       DIS  
 L16 0 SEA SUB=L10 SSS SAM L11 AND L15 AND L13  
 L17 0 SEA SUB=L10 SSS FUL L11 AND L15 AND L13  
 L18 STR L7  
 L19 50 SEA SUB=L10 SSS SAM L18  
 L20 STR L18  
 L21 50 SEA SUB=L10 SSS SAM L20  
 L22 2924 SEA SUB=L10 SSS FUL L20  
       SAV L22 SAS178S1/A  
 L23 1 SEA ABB=ON PLU=ON 121-44-8/RN  
 L24 1 SEA ABB=ON PLU=ON TRIMETHYLAMINE/CN  
 L25 1 SEA ABB=ON PLU=ON TRIPROPYLAMINE/CN  
 L26 1 SEA ABB=ON PLU=ON TRI-ISO-PROPANOLAMINE/CN  
 L27 1 SEA ABB=ON PLU=ON TRIBUTYLAMINE/CN  
 L28 1 SEA ABB=ON PLU=ON TRI-TERT-BUTYLAMINE/CN  
 L29 1 SEA ABB=ON PLU=ON TRI-SEC-BUTYLAMINE/CN  
 L30 7 SEA ABB=ON PLU=ON (L23 OR L24 OR L25 OR L26 OR L27 OR  
       L28 OR L29)

FILE 'HCAPLUS' ENTERED AT 17:09:08 ON 23 MAY 2007  
 L31 12174 SEA ABB=ON PLU=ON L22  
 L32 37055 SEA ABB=ON PLU=ON L30  
 L33 116 SEA ABB=ON PLU=ON L31 AND L32  
 L34 4750 SEA ABB=ON PLU=ON L22 (L) MOA+ALL/RL  
 L35 13651 SEA ABB=ON PLU=ON L30 (L) MOA+ALL/RL  
 L36 40 SEA ABB=ON PLU=ON L34 AND L35  
 L37 38 SEA ABB=ON PLU=ON L36 AND (1840-2003)/PY, PRY, AY  
 L38 QUE ABB=ON PLU=ON STABLE? OR STABILIZ?  
 L39 7 SEA ABB=ON PLU=ON L37 AND L38  
 L40 31 SEA ABB=ON PLU=ON L37 NOT L39

=> fil hcap  
 FILE 'HCAPLUS' ENTERED AT 17:17:09 ON 23 MAY 2007  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 23 May 2007 VOL 146 ISS 22  
FILE LAST UPDATED: 22 May 2007 (20070522/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 139 ibib abs hitstr hitind 1-7

*✓ the instant application*

L39 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:159893 HCAPLUS  
 DOCUMENT NUMBER: 142:199124  
 TITLE: Thermal stabilizer for plastics  
 INVENTOR(S): Ittmann, Guenther  
 PATENT ASSIGNEE(S): Roehm GmbH & Co. KG, Germany  
 SOURCE: Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10335578	A1	20050224	DE 2003-10335578	200307 31
WO 2005021631	A1	20050310	WO 2004-EP4088	200404 17
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			<--	
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			<--	
EP 1532202	A1	20050525	EP 2004-728108	200404

17

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EP 1532202 B1 20060531  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
PL, SK, HR

CN 1697855 A 20051116 CN 2004-80000489 200404  
17

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AT 328034 T 20060615 AT 2004-728108 200404  
17

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JP 2006524715 T 20061102 JP 2006-500092 200404  
17

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US 2006155048 A1 20060713 US 2005-528178 200503  
17

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PRIORITY APPLN. INFO.: DE 2003-10335578 A 200307  
31

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WO 2004-EP4088 W 200404  
17

## OTHER SOURCE(S): MARPAT 142:199124

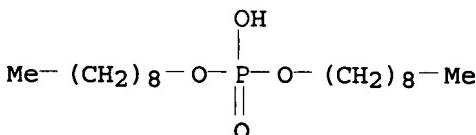
- AB A suitable heat **stabilizer** for polymers, especially PMMA, is a mono- or dialkylated phosphoric acid ammonium salt Rn<sub>1</sub>PO<sub>3</sub>-(HN+-R<sub>2</sub>)<sub>m</sub> (R<sub>1</sub> = Me to n-dodecyl, also iso-Pr, iso-butyl; R<sub>2</sub> = Me, Et, (iso-)propyl, butyl; n = 1 or 2; m = 2 or 1), which is added in concns. 0.001-5.0 weight% referred to the polymerizable monomer (mixture). A remarkable increased thermostability with weight loss 2% was observed at 281° compared with 209°, if 99.87 weight% MMA-PMMA was polymerized with 0.08 weight% AIBN and 0.05 weight% di-Me phosphoric acid triethylamine.
- IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
RL: MOA (Modifier or additive use); USES (Uses)  
(heat stabilizer; thermal stabilizer for plastics)
- RN 121-44-8 HCPLUS
- CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
RL: MOA (Modifier or additive use); USES (Uses)  
(mixed with dinonyl phosphate, Zelec UN; thermal stabilizer for plastics)
- RN 36047-43-5 HCPLUS
- CN Phosphoric acid, monononyl ester (9CI) (CA INDEX NAME)

Me—(CH<sub>2</sub>)<sub>8</sub>—OPO<sub>3</sub>H<sub>2</sub>

IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; thermal stabilizer for plastics)  
 RN 3138-43-0 HCAPLUS  
 CN Phosphoric acid, dinonyl ester (8CI, 9CI) (CA INDEX NAME)



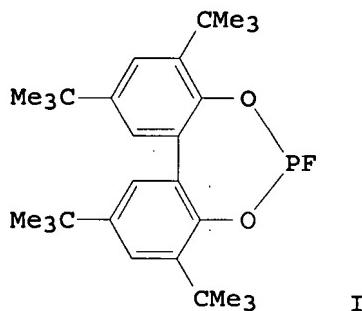
IC ICM C08K005-521  
 ICS C08L033-08; C08J005-10  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST phosphorus contg org compd heat **stabilizer** PMMA; alkylated phosphoric acid ammonium salt polymer heat **stabilizer**; triethylamine zelec un reaction product thermal **stabilizer** PMMA  
 IT Organic compounds, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (phosphorus-containing, heat **stabilizer**; thermal **stabilizer** for plastics)  
 IT Heat **stabilizers**  
 (thermal **stabilizer** for plastics)  
 IT Molded plastics, preparation  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (thermal **stabilizer** for plastics)  
 IT Polymers, miscellaneous  
 RL: MSC (Miscellaneous)  
 (thermal **stabilizer** for plastics)  
 IT 121-44-8D, Triethylamine, reaction products with Zelec UN 42610-78-6D, Zelec UN, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (heat **stabilizer**; thermal **stabilizer** for plastics)  
 IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; thermal **stabilizer** for plastics)  
 IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; thermal **stabilizer** for plastics)  
 IT 79-10-7DP, Acrylic acid, esters, polymers 79-41-4DP, Methacrylic acid, esters, polymers 9011-14-7P, PMMA  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermal stabilizer for plastics)

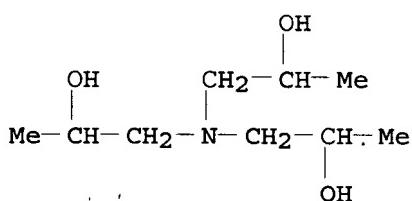
L39 ANSWER 2 OF 7 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:170303 HCPLUS  
 DOCUMENT NUMBER: 118:170303  
 TITLE: Crystalline polyolefin compositions with good  
       stiffness and heat resistance  
 INVENTOR(S): Nakajima, Yoichi  
 PATENT ASSIGNEE(S): Chisso Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04246441	A	19920902	JP 1991-32048	199101 31
JP 2896611	B2	19990531	JP 1991-32048	199101 31

PRIORITY APPLN. INFO.: <--  
 GI <--

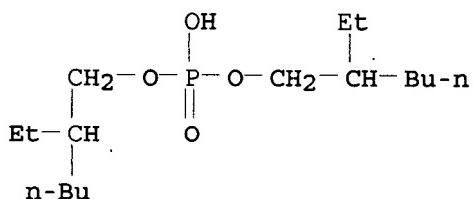


- AB The title compns. contain crystalline polyolefins and heat **stabilizer**-nucleating agents selected from cyclic fluorophosphites FP(OR<sub>1</sub>)OR<sub>2</sub> (R<sub>1</sub>R<sub>2</sub> = ring-completing group derived from a substituted bisphenol), metal compds., dialkyl esters of dicarboxyalkanesulfonic acid Li, Na, or K salts, and aliphatic amines. A composition contained polypropene 100, I 0.1, K stearate 0.1, and BuCH<sub>2</sub>CH<sub>2</sub>O<sub>2</sub>CCH<sub>2</sub>CH<sub>2</sub>(SO<sub>3</sub>Na)CO<sub>2</sub>CH<sub>2</sub>CHEtBu 0.1 part.
- IT 122-20-3, Triisopropanolamine 141-65-1  
 15505-13-2 19045-76-2 19045-77-3
- RL: **USES** (Uses)  
 (heat **stabilizer**-crystal nucleating agent, for crystalline polyolefins)
- RN 122-20-3 HCPLUS
- CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)



RN 141-65-1 HCPLUS

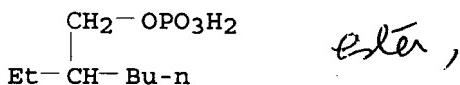
CN Phosphoric acid, bis(2-ethylhexyl) ester, sodium salt (1:1) (CA INDEX NAME)



## ● Na

RN 15505-13-2 HCPLUS

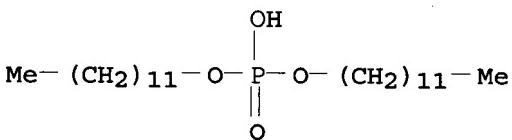
CN Phosphoric acid, mono(2-ethylhexyl) ester, sodium salt (1:2) (CA INDEX NAME)



## ●2 Na

RN 19045-76-2 HCPLUS

CN Phosphoric acid, didodecyl ester, potassium salt (8CI, 9CI) (CA INDEX NAME)

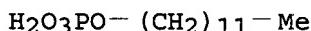


## ● K

RN 19045-77-3 HCPLUS

CN Phosphoric acid, monododecyl ester, dipotassium salt (8CI, 9CI) (CA

(INDEX NAME)



## ●2 K

- IC ICM C08L023-00  
 ICS C08K003-22; C08K003-26; C08K005-39; C08K005-42; C08K005-47;  
 C08K005-49; C08K005-52; C08K005-5317
- CC 37-6 (Plastics Manufacture and Processing)  
 ST polyolefin crystal nucleation heat **stabilizer**; fluorophosphite bisphenol heat **stabilizer** polyolefin; sulfosuccinate dialkyl crystal nucleation polyolefin; stearate potassium crystal nucleation polyolefin; polypropene crystal nucleation heat **stabilizer**
- IT Amines, uses  
 Quaternary ammonium compounds, uses  
 RL: USES (Uses)  
 (heat **stabilizer**-crystal nucleating agents, for crystalline polyolefins)
- IT Heat **stabilizers**  
 (nucleating agents and, for crystalline polyolefins)
- IT Crystal nucleation  
 (agents, heat **stabilizers** and, for crystalline polyolefins)
- IT Sulfonic acids, compounds  
 RL: USES (Uses)  
 (alkali metal salts, heat **stabilizer**-crystal nucleating agents, for crystalline polyolefins)
- IT Amines, uses  
 RL: USES (Uses)  
 (poly-, heat **stabilizer**-crystal nucleating agents, for crystalline polyolefins)
- IT Alkenes, polymers  
 RL: USES (Uses)  
 (polymers, heat **stabilizer**- and crystal nucleation agent-containing, rigid)
- IT 9003-07-0, Polypropylene 9010-79-1, Ethylene-propylene copolymer 25895-47-0, Butene-1-ethylene-propylene copolymer 106565-43-9, Ethylene-propylene block copolymer  
 RL: USES (Uses)  
 (heat **stabilizer**- and crystal nucleation agent-containing, rigid)
- IT 56-37-1, N,N,N-Triethyl-N-benzylammonium chloride 72-17-3, Sodium lactate 100-97-0, uses 109-76-2D, 1,3-Propanediamine, tallow alkyl derivs. 122-20-3, Triisopropanolamine 124-09-4, 1,6-Hexanediamine, uses 124-22-1, 1-Dodecanamine 124-28-7, N-Stearyl-N,N-dimethylamine 136-29-8 141-65-1 142-47-2, Mono-sodium glutamate 148-18-5, Sodium diethyldithiocarbamate 150-90-3, Sodium succinate 471-34-1, Calcium carbonate, uses 512-25-4, Barium citrate 532-32-1, Sodium benzoate 546-89-4, Lithium acetate 546-93-0, Magnesium carbonate 553-91-3, Lithium oxalate 577-11-7, Sodium di(2-ethylhexyl) sulfosuccinate 585-09-1, Potassium malate 593-29-3, Potassium stearate 868-19-9 1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide (MgO), uses 2492-26-4, Sodium 2-benzothiazolethiolate 5908-78-1, Barium salicylate

6332-55-4 6976-36-9 12304-65-3, Hydrotalcite 13329-67-4,  
 Sodium 12-hydroxyoctadecanoate 15217-42-2 15505-13-2  
 17264-54-9, Sodium p-toluate 17301-53-0, N-Docosyl-N,N,N-  
 trimethylammonium chloride 18448-65-2 19045-76-2  
**19045-77-3** 19147-16-1 19473-49-5, Mono-potassium  
 glutamate 19766-89-3, Sodium 2-ethylhexanoate 20752-56-1  
 21645-51-2, Aluminum hydroxide, uses 24170-14-7 24994-20-5  
 31017-83-1 33976-12-4 39663-84-8, Lithium glycolate  
 40870-38-0D, tallow alkyl derivs. 42596-02-1 51126-65-9  
 51568-80-0 52497-24-2 55695-80-2, Mono-lithium glutamate  
 56418-89-4, Barium 3,5-di-tert-butyl-4-hydroxybenzoate 56624-77-2  
 62122-15-0 65597-20-8, Lithium dihexyl sulfosuccinate  
 66648-22-4, Lithium 2-benzothiazolethiolate 69882-55-9  
 74563-70-5 91993-34-9 94945-28-5 113682-88-5 118337-09-0  
 119735-73-8 119735-74-9 122757-26-0, 2,2'-Methylenebis(4,6-di-  
 tert-butylphenyl) fluorophosphite 124027-29-8 133940-41-7  
 133949-87-8 133949-88-9 133949-89-0 133949-90-3 134016-96-9  
 134883-00-4D, coco alkyl derivs. 134947-42-5 134947-43-6  
 134947-44-7 138511-57-6 141181-27-3 142359-84-0 142539-85-3  
 144722-63-4 144722-67-8 146622-60-8 146623-02-1 146623-03-2  
 146793-89-7 146793-90-0 146793-91-1 146793-92-2 146793-93-3  
 146793-94-4 146793-95-5 146793-96-6 146793-97-7 146793-98-8  
 146793-99-9 146794-00-5 146794-01-6 146794-02-7 146863-78-7  
 146863-79-8

## RL: USES (Uses)

(heat stabilizer-crystal nucleating agent, for crystalline polyolefins)

L39 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:120065 HCAPLUS  
 DOCUMENT NUMBER: 106:120065  
 TITLE: Diaryl pentaerythritol diphosphite  
 INVENTOR(S): Tajima, Kenji; Takahashi, Masayuki; Nishikawa,  
 Kazunori; Takeuchi, Takashi  
 PATENT ASSIGNEE(S): Adeka Argus Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61225191	A	19861006	JP 1985-66300	198503 29
JP 05007396	B	19930128		<--
EP 199997	A2	19861105	EP 1986-104257	198603 27
EP 199997	A3	19880113		<--
EP 199997	B1	19910529		
R: BE, CH, DE, FR, GB, LI, NL				
US 4739090	A	19880419	US 1986-845903	198603 28

PRIORITY APPLN. INFO.:

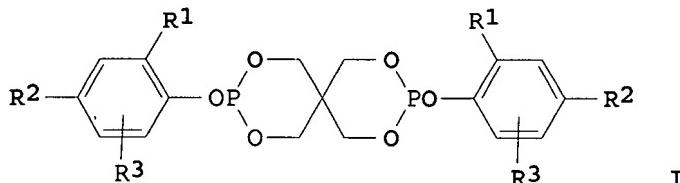
JP 1985-66300

A

198503  
29OTHER SOURCE(S) :  
GI

MARPAT 106:120065

&lt;--

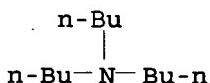


AB Cyclic phosphites I (R1 = C4-8 tertiary alkyl, cyclohexyl; R2, R3 = H, C1-8 alkyl), useful as synthetic resin **stabilizers** (no data), are prepared Thus, 1.0 mol PCl<sub>3</sub> was added to a mixture of 1.1 mol 2,4-(Me<sub>3</sub>C)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>OH, 0.5 mol pentaerythritol, and 0.68 g Et<sub>3</sub>N in xylene at 90° with stirring to give 84.5% I (R1 = R2 = Me<sub>3</sub>C, R3 = H), vs. 51.5% without Et<sub>3</sub>N.

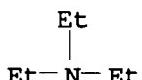
IT 102-82-9 121-44-8, uses and miscellaneous  
RL: CAT (Catalyst use); **USES (Uses)**  
(catalyst, for reaction of hindered phenols with pentaerythritol and phosphorus trichloride)

RN 102-82-9 HCPLUS

CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



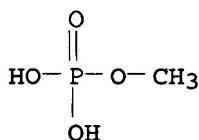
RN 121-44-8 HCPLUS  
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



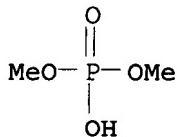
IT 812-00-0, Monomethyl phosphate 813-78-5, Dimethyl phosphate 3921-30-0  
RL: CAT (Catalyst use); **USES (Uses)**  
(cocatalyst, for reaction of hindered phenol with pentaerythritol and phosphorus trichloride)

RN 812-00-0 HCPLUS

CN Phosphoric acid, monomethyl ester (CA INDEX NAME)



RN 813-78-5 HCPLUS  
 CN Phosphoric acid, dimethyl ester (CA INDEX NAME)



RN 3921-30-0 HCPLUS  
 CN Phosphoric acid, monodecyl ester (CA INDEX NAME)

$\text{H}_2\text{O}_3\text{PO}- (\text{CH}_2)_9-\text{Me}$

IC ICM C07F009-145  
 ICA B01J031-02  
 CC 29-7 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 37  
 ST diaryl pentaerythritol diphosphite resin **stabilizer**  
 IT Plastics  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (stabilizers for, diaryl pentaerythritol diphosphites)  
 IT 68-12-2, uses and miscellaneous 102-82-9 121-44-8  
 , uses and miscellaneous 1643-19-2, Tetrabutylammonium bromide  
 2782-91-4, Tetramethylthiourea 4519-28-2, Tetramethylphosphonium  
 bromide  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (catalyst, for reaction of hindered phenols with pentaerythritol  
 and phosphorus trichloride)  
 IT 812-00-0, Monomethyl phosphate 813-78-5, Dimethyl  
 phosphate 838-85-7, Diphenyl phosphate 1571-33-1,  
 Phenylphosphonic acid 3658-48-8, Bis(2-Ethylhexyl)phosphonic acid  
 3921-30-0 6881-57-8  
 RL: CAT (Catalyst use); **USES (Uses)**  
 (cocatalyst, for reaction of hindered phenol with pentaerythritol  
 and phosphorus trichloride)  
 IT 26741-53-7P 70653-90-6P 70653-91-7P 70653-95-1P 70653-98-4P  
 106749-99-9P 106936-82-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as synthetic resin **stabilizer**)

L39 ANSWER 4 OF 7 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1987:24873 HCPLUS  
 DOCUMENT NUMBER: 106:24873  
 TITLE: Improving the stability of solidified  
 radioactive ion-exchange resin particles  
 INVENTOR(S): Laske, Dietrich; Doehring, Lothar  
 PATENT ASSIGNEE(S): Gesellschaft zur Foerderung der

Industrieorientierten Forschung an den  
Schweizerischen Hochschulen und Weiteren  
Institutionen, Switz.

SOURCE: Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 182172	A1	19860528	EP 1985-113953	198511 02
EP 182172	B1	19900816		<--
R: BE, DE, FR, GB, SE				
CH 664843	A5	19880331	CH 1984-5407	198411 12
US 4732705	A	19880322	US 1985-796747	198511 12
PRIORITY APPLN. INFO.:			CH 1984-5407	A
				198411 12

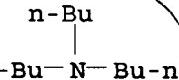
AB The stability of radioactive ion-exchange resin particles embedded in an organic and/or inorg. binder which is then allowed to harden is increased by treating the ion-exchange resin, before or during the solidification process, with  $\geq 1$  additive or heat to decrease the swelling factor below 1.7. Thus, Lewatit S 100, having a swelling factor of 2.1, was treated with dibutylamine to produce a swelling factor of 1.14. When the treated resin was solidified with cement, the product contained 35.1 kg dry substance in 100 L matrix, compared with 22 kg/100 L with untreated resin, and was water-resistant even after drying.

IT 102-82-9 107-66-4 1623-15-0  
RL: PEP (Physical, engineering or chemical process); PROC (Process);  
USES (Uses)

(radioactive ion-exchanger treatment by, before or during  
solidification)

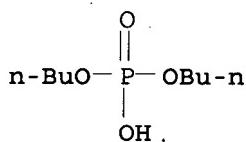
RN 102-82-9 HCPLUS

CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)

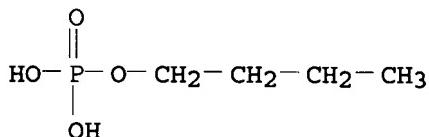


RN 102-82-9 HCPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 1623-15-0 HCAPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM G21F009-16  
 CC 71-11 (Nuclear Technology)  
 IT Cement  
     (radioactive ion-exchanger solidification with,  
     stabilization in)  
 IT 64-19-7D, cocoalkylamine salts 77-98-5 78-90-0 78-90-0D,  
   polysulfide derivs. 79-10-7, Acrylic acid, uses and miscellaneous  
   79-17-4D, polysulfide derivs. 80-62-6 80-70-6D, polysulfide  
   derivs. 100-85-6 102-82-9 106-50-3, uses and  
   miscellaneous 107-15-3, uses and miscellaneous 107-15-3D,  
   polysulfide derivs. 107-66-4 110-85-0, properties  
   110-85-0D, polysulfide derivs. 111-92-2, Dibutylamine 113-00-8D,  
   polysulfide derivs. 123-46-6 140-89-6 302-01-2, properties  
   461-58-5D, polysulfide derivs. 557-34-6, Zinc acetate 563-41-7  
   621-85-2 1002-89-7, Ammonium stearate 1344-13-4 1344-81-6  
   1420-40-2 1623-15-0 2035-71-4 2052-49-5 2200-97-7  
   2235-54-3 2958-09-0 2986-19-8 4499-86-9 5282-80-4  
   5538-94-3 6891-44-7 7173-51-5 7446-70-0, Aluminum chloride,  
   uses and miscellaneous 7705-07-9, Titanium trichloride, uses and  
   miscellaneous 7705-08-0, Ferric chloride, uses and miscellaneous  
   7720-78-7, Ferrous sulfate 14518-69-5 17287-03-5 19402-63-2  
   23542-35-0 27103-90-8 29383-23-1, Vinyl imidazole 32680-30-1  
   33850-87-2, Tributylamine nitrate 37199-66-9 39345-92-1  
   39464-64-7 50864-67-0 51811-79-1 67559-83-5, Dibutylamine  
   nitrate 69771-54-6 82098-48-4 100224-74-6 105849-28-3  
   105849-29-4 105850-84-8 105850-85-9 105850-86-0  
 RL: PEP (Physical, engineering or chemical process); PROC (Process);  
 USES (Uses)  
     (radioactive ion-exchanger treatment by, before or during  
     solidification)

L39 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:407943 HCAPLUS  
 DOCUMENT NUMBER: 103:7943  
 TITLE: Pressed materials such as chipboards with  
       polyisocyanate binders using latent  
       heat-activatable catalysts  
 INVENTOR(S): Kerimis, Dimitrios; Mueller, Peter; Kapps,  
       Manfred  
 PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.  
 SOURCE: Ger. Offen., 46 pp.

DOCUMENT TYPE: CODEN: GWXXBX  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: German  
 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3328662	A1	19850221	DE 1983-3328662	198308 09
US 4608407	A	19860826	US 1984-632341	198407 19
NO 8403018	A	19850211	NO 1984-3018	198407 25
NO 158751	B	19880718	<--	
NO 158751	C	19881026		
CA 1225808	A1	19870825	CA 1984-459642	198407 25
EP 133680	A1	19850306	EP 1984-108992	198407 30
EP 133680 R: AT, BE, CH, DE, FR, GB, LI, SE AT 33848	B1 T	19880427 19880515	AT 1984-108992	198407 30
FI 8403101	A	19850210	FI 1984-3101	198408 07
FI 78723	B	19890531	<--	
FI 78723	C	19890911		
DK 8403821	A	19850210	DK 1984-3821	198408 08
DK 159721	B	19901126	<--	
DK 159721	C	19910422		
JP 60055016	A	19850329	JP 1984-165783	198408 09
JP 03039530	B	19910614	<--	
PRIORITY APPLN. INFO.:			DE 1983-3328662	A
				198308 09
			EP 1984-108992	A
				198407

30

AB Ammonium salts prepared from amines and esters of P-containing acids are used as latent, heat-activated catalysts for the curing of polyisocyanate binders in lignocellulosic materials. Thus, 101 parts Et<sub>3</sub>N [121-44-8] and 248 parts MeP(O)(OMe)<sub>2</sub> [756-79-6] were refluxed 8 h and then distilled in vacuo to remove unreacted phosphonate ester, giving 140 parts MeP(O)(OMe)ONEt<sub>3</sub>Me (I) [96203-11-1]. Wood chips (2250 parts) were mixed with 130 parts polymethylenopolyphenylene isocyanate (II) [9016-87-9] containing 0.5% I. This mixture, stable for at least 1-2 h at room temperature, was used as the center layer in a 3-layer composite prepared from wood chips containing II. The composite was cured 1.6 min in a mold at 170°. The cured composite had transverse tensile strength 0.25 MPa, compared with 0.20 for a composite cured similarly but without I.

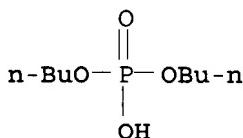
IT 107-66-4

RL: USES (Uses)

(salt formation from amines and)

RN 107-66-4 HCPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



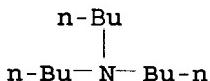
IT 102-82-9 121-44-8, reactions

RL: USES (Uses)

(salt formation from di-Me methanephosphonate and)

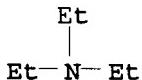
RN 102-82-9 HCPLUS

CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM B29J005-00

ICS C08G018-18; C08L097-02

CC 43-9 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 37

IT 78-40-0 107-66-4 756-79-6

RL: USES (Uses)

(salt formation from amines and)

IT 102-82-9 109-02-4 111-92-2 120-94-5 121-44-8

, reactions 280-57-9 3001-72-7 6674-22-2

## RL: USES (Uses)

(salt formation from di-Me methanephosphonate and)

L39 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1984:492144 HCAPLUS  
 DOCUMENT NUMBER: 101:92144  
 TITLE: Stabilizers for halogen-containing resins  
 PATENT ASSIGNEE(S): Katsuta Kako Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59038250	A	19840302	JP 1982-148645	198208 27
JP 03048222	B	19910723	JP 1982-148645	198208 27

AB Liquid stabilizers contain Zn and alkaline earth metal salts of C6-18 organic acids, organic H<sub>3</sub>PO<sub>3</sub> esters, H<sub>3</sub>PO<sub>3</sub> or H<sub>3</sub>PO<sub>4</sub> compds. contg ≥1 P-OH linkage, organotin compds., N-containing compds., and solvents. Thus, a liquid stabilizer was prepared from calcium octoate [6107-56-8] 10, zinc octoate [557-09-5] 10, dibutyltin dilaurate [77-58-7] 2, triisopropanolamine [122-20-3] 0.5, dioctyl phthalate (I) [117-81-7] 11.5, oleyl alc. [143-28-2] Et diglycol [111-90-0] 3, PCOC<sub>2</sub>H<sub>4</sub>OEt) (OC<sub>2</sub>H<sub>4</sub>OC<sub>2</sub>H<sub>4</sub>OEt) (OC<sub>2</sub>H<sub>4</sub>OC<sub>2</sub>H<sub>4</sub>OBu) (II) [91433-53-3] 30, and (C<sub>10</sub>H<sub>21</sub>O)<sub>2</sub>POH (III) [19931-58-9] 30 parts. Sheets were prepared from PVC [9002-86-2] 100, I 50, an epoxidized soybean oil 2.0, barium stearate [6865-35-6] 0.4 zinc stearate [557-05-1] 0.6, and the liquid stabilizer 1.5 parts and had heat stability 65 min at 180°, good transparency, slight discoloration, weather resistance 1300 h, and slight blooming, compared with 60, slight turbidity, discoloration, 850, and bleeding, resp., for sheets using a liquid stabilizers containing 60 parts II and no III.

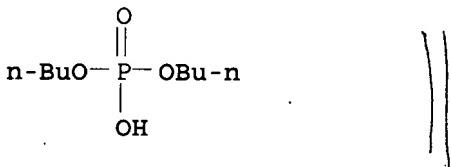
IT 107-66-4 122-20-3

## RL: USES (Uses)

(liquid stabilizer compns., for PVC)

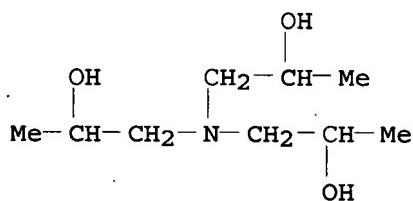
RN 107-66-4 HCAPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 122-20-3 HCAPLUS

CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)



IC C08L027-00; C08K005-09; C08K005-17; C08K005-51; C08K005-57  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST PVC heat **stabilizer**; phosphite heat **stabilizer**  
 PVC; tin heat **stabilizer** PVC; amine heat  
**stabilizer** PVC; zinc heat **stabilizer** PVC  
 IT Plasticizers  
 (dioctyl phthalate, solvents, for liquid **stabilizer**  
 compns., for PVC)  
 IT Heat **stabilizers**  
 Light **stabilizers**  
 (organic acid salts, containing phosphorus compds. and tin compds. and  
 nitrogen compds. and solvents, for PVC)  
 IT Solvents  
 (organic, for liquid **stabilizer** compns., for PVC)  
 IT Alcohols, uses and miscellaneous  
 RL: USES (Uses)  
 (solvents, for liquid **stabilizer** compns., for PVC)  
 IT Amines, uses and miscellaneous  
 RL: USES (Uses)  
 (di-, liquid **stabilizer** compns., for PVC)  
 IT 77-58-7 100-37-8 102-71-6, uses and miscellaneous 107-15-3,  
 uses and miscellaneous 107-66-4 122-20-3  
 122-39-4, uses and miscellaneous 557-09-5 2718-67-4 4486-47-9  
 4712-55-4 6107-56-8 6172-74-3 19931-58-9 22205-30-7  
 25168-24-5 26761-46-6 32429-22-4 42800-31-7 82349-74-4  
 91422-01-4 91433-47-5 91433-48-6 91433-51-1 91433-52-2  
 91433-54-4  
 RL: USES (Uses)  
 (liquid **stabilizer** compns., for PVC)  
 IT 9002-86-2  
 RL: USES (Uses)  
 (liquid **stabilizers** for, containing organic acid salts,  
 phosphorus compds. and tin compds. in nitrogen compds. and  
 solvents)  
 IT 103-23-1 104-76-7 111-76-2 111-90-0 117-81-7 143-28-2  
 RL: USES (Uses)  
 (solvents, for liquid **stabilizer** compns. for PVC)  
 IT 557-05-1 1330-78-5 6865-35-6  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (**stabilizers**, for PVC)

L39 ANSWER 7 OF 7 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1977:148848 HCPLUS  
 DOCUMENT NUMBER: 86:148848  
 TITLE: Free radical photosensitive materials  
 INVENTOR(S): Wainer, Eugene; Shirey, John E.; Ramins, Lothar  
 PATENT ASSIGNEE(S): Horizons Inc., Division of Horizons Research  
 Inc., USA

SOURCE: U.S., 6 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3986880	A	19761019	US 1974-500117	197408 23

PRIORITY APPLN. INFO.: US 1974-500117 A  
 <--  
 197408  
 23

AB The shelf life of a free-radical photog. composition containing arylamines and an organic halogen compound is improved by including an alc. or a phenol derivative, a trialkyl or triaryl phosphate and triphenylcarbinol. Thus, a solution prepared from triphenylamine 26, triphenylstibine 16, triethylamine 64, 1,1-bis(p-dimethylaminophenyl)ethylene 80, CHI3 360, 4-aminopyrene 12, acetanilide 12, 4-phenylpyridine N-oxide 24, N-vinylcarbazole 2, 3,6-diisopropylcatechol (I) 5, triphenyl phosphate (II) 10, triphenylcarbinol (III) 75 mg, a polystyrene solution (27 g in PhMe 100 mL) 4, a poly(phenylene oxide) solution (18 g in CCl2CHCl 100 mL) 1 and 1,2-dichloroethane 2 mL was coated on a poly(ethylene terephthalate) support as a 0.003 in. layer, dried, exposed to a high-pressure Hg lamp and fixed by heating at 160° for 2 min to give an image with a speed of 98 mJ (for a net d. (Dmax-Dmin) of 1.0), a fog of 0.04 and a γ of 2.3 for a fresh film and 87 mJ, 0.05 and 2.0, resp., for a film stored for weeks vs. 165 mJ, 0.04 and 1.6 and 220 mJ, 0.2 and 1.0, resp., for a control using 2,6-di-tert-butylcresol in the place of I, II and III.

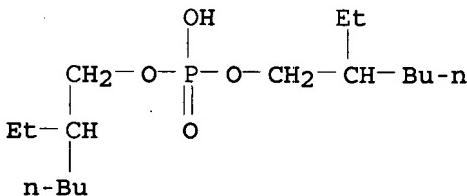
IT 298-07-7

RL: USES (Uses)

(photosensitive compns. containing aryl amines, organic halogen compound, phenol derivative, triphenylcarbinol and, for photog. image production)

RN 298-07-7 HCPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



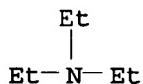
IT 121-44-8, uses and miscellaneous

RL: USES (Uses)

(photosensitive compns. containing organic halogen compound, triaryl phosphate, phenol derivative, triphenylcarbinol and, for photog. image production)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC G03C001-52  
 INCL 096090000R  
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST free radical photog compn; aryl phosphate photog compn; alc stabilizer photog compn; phenol stabilizer photog compn; phenylcarbinol photog compn  
 IT 70-55-3 78-51-3 84-74-2 112-62-9 115-86-6 117-81-7  
 126-72-7 298-07-7 7260-11-9  
 RL: USES (Uses)  
 (photosensitive compns. containing aryl amines, organic halogen compound, phenol derivative, triphenylcarbinol and, for photog. image production)  
 IT 83-07-8 103-84-4 121-44-8, uses and miscellaneous  
 603-34-9 603-36-1 1131-61-9 1484-13-5 7478-69-5 13080-52-9  
 51279-53-9 62555-79-7  
 RL: USES (Uses)  
 (photosensitive compns. containing organic halogen compound, triaryl phosphate, phenol derivative, triphenylcarbinol and, for photog. image production)

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L40 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:159892 HCAPLUS  
 DOCUMENT NUMBER: 142:199123  
 TITLE: Internal releasing agent for plastics  
 INVENTOR(S): Ittmann, Guenther  
 PATENT ASSIGNEE(S): Roehm GmbH & Co. KG, Germany  
 SOURCE: Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10335577	A1	20050224	DE 2003-10335577	200307 31

WO 2005021228	A1	20050310	WO 2004-EP3868	200404 13
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,  
 SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,

VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,  
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
 ML, MR, NE, SN, TD, TG

EP 1648672 A1 20060426 EP 2004-726975

200404  
13

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EP 1648672 B1 20070207  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK  
 CN 1812874 A 20060802 CN 2004-80018263

200404  
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JP 2007500613 T 20070118 JP 2006-521399

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AT 353276 T 20070215 AT 2004-726975

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US 2006237872 A1 20061026 US 2006-566000

200601  
27

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PRIORITY APPLN. INFO.: DE 2003-10335577 A

200307  
31

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WO 2004-EP3868 W

200404  
13

OTHER SOURCE(S): MARPAT 142:199123

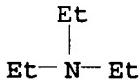
AB A suitable releasing agent for polymers, especially PMMA, is a mono- or dialkylated phosphoric acid ammonium salt  $Rn_1PO_3-(HN+-R32)m$  ( $R1 = Me$  to n-dodecyl, also iso-Pr, iso-butyl;  $R2 = Me, Et, (iso-)propyl, butyl; n = 1$  or 2;  $m = 2$  or 1), which is added in concns. 0.01-5.0 weight% referred to the polymerizable monomer (mixture). Thus, 99.87 weight% MMA-PMMA was polymerized with 0.08 weight% AIBN and 0.05 weight% di-Me phosphoric acid triethylamine in a closed silicate glass chamber sealed with PVC in a water bath for 17 h at 45°, followed by subsequent polymerization for 3 h at 115°. The acrylate glass could be easily separated from the silicate glasses.

IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT  
 (Reactant or reagent); USES (Uses)

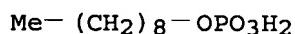
(internal releasing agent; internal releasing agent for plastics)

RN 121-44-8 HCAPLUS

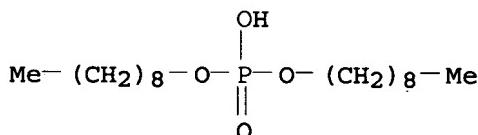
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; internal releasing agent for plastics)  
 RN 36047-43-5 HCPLUS  
 CN Phosphoric acid, monononyl ester (9CI) (CA INDEX NAME)



IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; internal releasing agent for plastics)  
 RN 3138-43-0 HCPLUS  
 CN Phosphoric acid, dinonyl ester (8CI, 9CI) (CA INDEX NAME)



IC ICM B29C033-60  
 ICS C08K005-521; C08J005-10; C08L033-08  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT 121-44-8D, Triethylamine, reaction products with Zelec UN  
 RL: MOA (Modifier or additive use); RCT (Reactant); RACT  
 (Reactant or reagent); USES (Uses)  
 (internal releasing agent; internal releasing agent for plastics)  
 IT 36047-43-5D, Monononylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with dinonyl phosphate, Zelec UN; internal releasing agent for plastics)  
 IT 3138-43-0D, Dinonylphosphate, reaction products with triethylamine  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (mixed with monononyl phosphate, Zelec UN; internal releasing agent for plastics)

L40 ANSWER 2 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:796223 HCPLUS  
 DOCUMENT NUMBER: 137:359333  
 TITLE: Deactivation in Sub- and Supercritical Carbon Dioxide  
 AUTHOR(S): Murzin, A. A.; Babain, V. A.; Shadrin, A. Yu.;  
 Kamachev, V. A.; Romanovskii, V. N.; Starchenko,  
 V. A.; Podoinitsyn, S. V.; Revenko, Yu. A.;  
 Logunov, M. V.; Smart, N. G.  
 CORPORATE SOURCE: Khlopin Radium Institute, Research and Production Association, St. Petersburg, Russia  
 SOURCE: Radiochemistry (Moscow, Russian Federation) (Translation of Radiokhimiya) (

2002), 44(4), 410-415  
 CODEN: RDIOEO; ISSN: 1066-3622

PUBLISHER: MAIK Nauka/Interperiodica Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

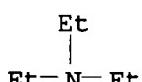
AB Solns. of hexafluoroacetylacetone and a modifier such as, e.g., pyridine in supercrit. CO<sub>2</sub> allow 97-99% removal of actinides from the stainless steel surface. The deactivation efficiencies were compared for liquid and supercrit. CO<sub>2</sub>. Single treatment run with solns. of HDEHP and DCH18C6 in liquid CO<sub>2</sub> removes 70-80% of transuranium elements and over 50% of Sr and Cs from the stainless steel surface. Deactivation of real contaminated radioactive samples was studied. Methods such as supercrit. fluid extraction and extraction with liquid CO<sub>2</sub> are suitable for deactivation of surfaces and porous materials.

IT 121-44-8, Triethylamine, uses

RL: MOA (Modifier or additive use); USES (Uses)  
 (radioactive decontamination with sub- and supercrit. carbon dioxide)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

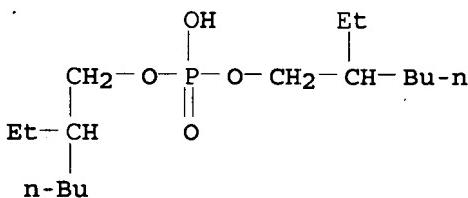


IT 298-07-7, HDEHP

RL: NUU (Other use, unclassified); USES (Uses)  
 (radioactive decontamination with sub- and supercrit. carbon dioxide)

RN 298-07-7 HCPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



CC 71-10 (Nuclear Technology)

IT 68-12-2, Dimethyl formamide, uses 93-60-7, Methyl 3-pyridinecarboxylate 108-48-5, 2,6-Dimethylpyridine 109-06-8, 2-Methylpyridine 110-86-1, Pyridine, uses 121-44-8, Triethylamine, uses 121-69-7, Dimethylaniline, uses 2459-07-6, Methyl 2-pyridinecarboxylate 4096-20-2, N-Phenylpiperidine 6574-15-8, N-(4-Nitrophenyl)piperidine

RL: MOA (Modifier or additive use); USES (Uses)  
 (radioactive decontamination with sub- and supercrit. carbon dioxide)

IT 124-38-9, Carbon dioxide, uses 298-07-7, HDEHP

1522-22-1, Hexafluoroacetylacetone 16069-36-6

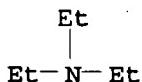
RL: NUU (Other use, unclassified); USES (Uses)  
 (radioactive decontamination with sub- and supercrit. carbon dioxide)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 3 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:737016 HCPLUS  
 DOCUMENT NUMBER: 135:290256  
 TITLE: Acrylic polysiloxane compositions, their aqueous glossy coatings and compounding method therefor  
 INVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori  
 PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

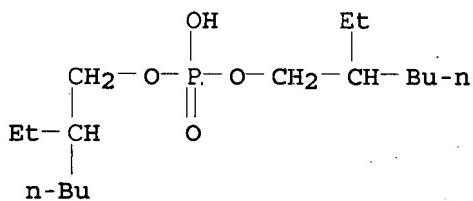
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001279160	A	20011010	JP 2000-95027	200003 30
<-- PRIORITY APPLN. INFO.: JP 2000-95027 200003 30				
<--				

OTHER SOURCE(S): MARPAT 135:290256  
 AB Title compns. comprise (a) emulsions of polymers containing silyl groups R1aSiX13-a [R1 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl; X1 = halogen, (thio)alkoxy, OH, NH2, acyloxy, aminoxy, phenoxy; a = 0-2], (b) (R2O)4-bSiR3b (R2 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl, C1-4 acyl; R3 = C1-10 alkyl, C6-10 aryl, C7-10 aralkyl; b = 0-2) silicones and/or their partially hydrolyzates, and (c) acidic organic compds. and basic compds. at acid/base equiv ratio (A/B) of 1:0.01-3. Mixing a Bu acrylate-Bu methacrylate-iso-Bu methacrylate-Me methacrylate-triethoxysilylpropyl methacrylate-poly(ethylene glycol) monomethacrylate-Aqualon RN 30-Aqualon HS 0515 copolymer-containing emulsion with ESI 48, adding a pigments paste and additives, and further stirring with an aqueous mixture of DP 8R and DBU at A/B of 1:1.0 to form a coating showing good gloss, water-contact angle 47° initially and 45° after 3 mo at outdoor, low brightness deviation after 3 mo at outdoor, and good water and weather resistance.  
 IT 121-44-8, Triethylamine, uses 298-07-7, DP 8R  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (acrylic polysiloxane compns. for glossy, hydrophilic, and antisoiling aqueous coatings and compounding method)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 298-07-7 HCPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C09D143-04  
 ICS C09D005-02; C09D183-02; C09D183-06  
 CC 42-10 (Coatings, Inks, and Related Products)  
 IT 57-11-4, Stearic acid, uses 121-44-8, Triethylamine, uses  
 298-07-7, DP 8R 1336-21-6, Ammonia water 6674-22-2, DBU  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (acrylic polysiloxane compns. for glossy, hydrophilic, and  
 antisoiling aqueous coatings and compounding method)

L40 ANSWER 4 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:551932 HCAPLUS  
 DOCUMENT NUMBER: 135:138786  
 TITLE: Aqueous antisoiling coating compositions and  
 compounding method therefor  
 INVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori; Kusakabe,  
 Masato  
 PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001207117	A	20010731	JP 2000-16345	200001 25

PRIORITY APPLN. INFO.: JP 2000-16345  
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 200001  
 25

AB Title compns., with high gloss, contain (a) aqueous resin dispersions,  
 (b) Si compds. ( $\text{R}_1\text{O}$ )<sub>4-a</sub> $\text{Si}(\text{OR}_2)_a$  ( $\text{R}_1, \text{R}_2 = \text{C}_1\text{-10 alkyl, C}_6\text{-10 aryl, C}_7\text{-10 aralkyl}; a = 0-2$ ) and/or their hydrolyzates, and (c) blends of  
 organic acids and basic compds. at acid/base equivalent ratio (R) of  
 $1/0.01$ . Adding a blend of aqueous NH<sub>3</sub> and DP 8R at R of  $1/0.3$  into an  
 aqueous composition containing Bu acrylate-Bu methacrylate-iso-Bu methacrylate-Me  
 methacrylate-MA 100 copolymer and ESi 48 gave a coating, which was  
 spread on a glass plate and aged at room temperature for 2 wk to form a  
 film with water-contact angle 49° initially, 43° after  
 soaking in water for 2 wk, and 49° after 3 mo at outdoor,  
 brightness deviation 1.7 at 45° surface, and 60° gloss  
 82.0%.

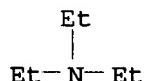
IT 121-44-8, Triethylamine, uses 298-07-7, DP 8R

## RL: MOA (Modifier or additive use); USES (Uses)

(aqueous acrylic coatings containing organic silicates and organic acid/base blends with hydrophilicity and gloss and soil resistance)

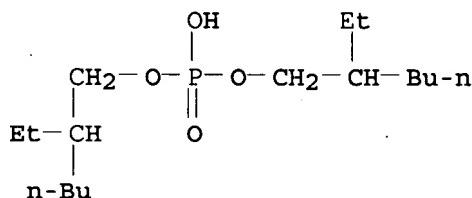
RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 298-07-7 HCPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C09D183-02

ICS C09D005-00; C09D133-06; C09D183-04

CC 42-10 (Coatings, Inks, and Related Products)

IT 57-11-4, Stearic acid, uses 78-10-4, Tetraethoxysilane

121-44-8, Triethylamine, uses 298-07-7, DP 8R

1336-21-6, Ammonia water 11099-06-2

## RL: MOA (Modifier or additive use); USES (Uses)

(aqueous acrylic coatings containing organic silicates and organic acid/base blends with hydrophilicity and gloss and soil resistance)

L40 ANSWER 5 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:517730 HCPLUS

DOCUMENT NUMBER: 135:108668

TITLE: Water-thinned polymer coating compositions,  
their manufacture, and brightening agentsINVENTOR(S): Kono, Yoshiyuki; Hatano, Takanori; Kusakabe,  
Masato

PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

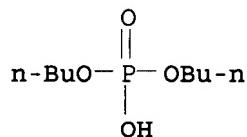
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

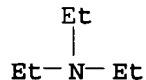
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001192620	A	20010717	JP 2000-335742	200011 02
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PRIORITY APPLN. INFO.:			JP 1999-316052	A 199911 05

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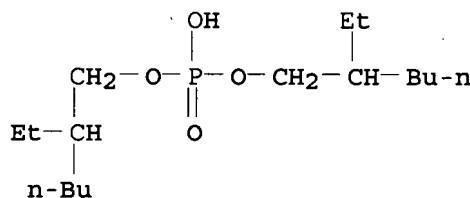
- OTHER SOURCE(S) : MARPAT 135:108668
- AB The compns. contain water-thinned polymer dispersions and brightening agents comprising acidic organic compds. and basic compds. at acid/base equivalent ratio 1/0.01-3. Thus, a composition containing 100 parts mixture of Odeflash Si-II (silicone-modified acrylic polymer coating) and an aqueous emulsion containing Bu acrylate-Me methacrylate-Bu methacrylate-iso-Bu methacrylate-triethoxysilylpropyl methacrylate-MA 100 (polyoxyethylene-containing vinyl monomer) copolymer and 5 parts brightening agent manufactured from di-Bu phosphate and 1,8-diazabicyclo[5.4.0]undec-7-ene was applied on a glass plate and dried to give a coating showing 20° gloss 62.8.
- IT 107-66-4, Dibutyl phosphate 121-44-8,  
Triethylamine, uses 298-07-7, Di(2-ethylhexyl) phosphate  
1070-03-7, Mono(2-ethylhexyl) phosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(brightening agents; manufacture of water-thinned polymer coating compns.)
- RN 107-66-4 HCPLUS
- CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



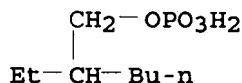
- RN 121-44-8 HCPLUS
- CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- RN 298-07-7 HCPLUS
- CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



- RN 1070-03-7 HCPLUS
- CN Phosphoric acid, mono(2-ethylhexyl) ester (CA INDEX NAME)

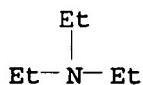


IC ICM C09D201-00  
 ICS C09D005-00; C09D007-12  
 CC 42-7 (Coatings, Inks, and Related Products)  
 IT 57-11-4, Stearic acid, uses 107-66-4, Dibutyl phosphate  
 121-44-8, Triethylamine, uses 151-41-7, Lauryl sulfate  
 298-07-7, Di(2-ethylhexyl) phosphate 1070-03-7,  
 Mono(2-ethylhexyl) phosphate 6674-22-2, 1,8-Diazabicyclo-[5.4.0]-7-  
 undecene 7664-41-7, Ammonia, uses 56572-86-2, Isodecyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (brightening agents; manufacture of water-thinned polymer coating  
 compns.)

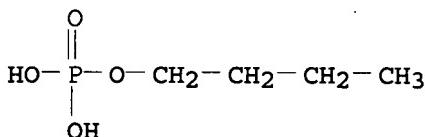
L40 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:294922 HCAPLUS  
 DOCUMENT NUMBER: 124:346157  
 TITLE: Water-based coating compositions  
 INVENTOR(S): Matsuide, Yasuhiro; Koshizawa, Shuichi;  
 Iwahashi, Masanori; Sato, Taiji; Oohara,  
 Shinichi  
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Inc., Japan.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08034954	A	19960206	JP 1994-172435	199407 25
JP 3635682	B2	20050406	JP 1994-172435	199407 25

AB Title compns. with good water resistance, hardness, storability  
 contain aqueous acrylic resins prepared from  $\alpha,\beta$ -unsatd.  
 carboxylic acids, aromatic vinyl monomers, and (meth)acrylamide-type  
 monomers, phosphoric acid compds., and pigments. (Thus, acrylic  
 resin prepared from methacrylic acid 6.0, styrene 15.0,  
 N-methoxymethylacrylamide 15.0, 2-hydroxyethyl methacrylate 5.0, and  
 Et acrylate 59.0 parts 124.5, monobutyl phosphate 0.6, and CR 93 100  
 parts were mixed and kneaded to give a test piece showing good  
 storability, water resistance, and hardness 4H.  
 IT 121-44-8DP, (Triethylamine, reaction products with modified  
 phosphoric acids)  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive  
 use); PREP (Preparation); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME),



IT 1623-15-0, Monobutyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 RN 1623-15-0 HCAPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM C09D133-02  
 ICS C09D125-08; C09D133-26  
 CC 42-7 (Coatings, Inks, and Related Products)  
 IT 121-44-8DP, Triethylamine, reaction products with modified  
 phosphoric acids  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive  
 use); PREP (Preparation); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)  
 IT 1623-15-0, Monobutyl phosphate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (water-based coatings containing acrylic resins, phosphoric acid  
 compds., and pigments)

L40 ANSWER 7 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1996:167703 HCAPLUS  
 DOCUMENT NUMBER: 124:204000  
 TITLE: Transparent, rigid, heat-resistant, and  
 resilient crystalline polyolefin compositions  
 INVENTOR(S): Nakajima, Yoichi  
 PATENT ASSIGNEE(S): Chisso Corp, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

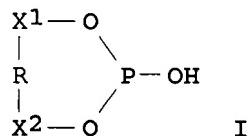
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07330963	A	19951219	JP 1994-175946	199407 04
JP 3805388	B2	20060802	JP 1994-95876	A 199404 08
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PRIORITY APPLN. INFO.:				

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JP 1994-95877 A  
199404  
08

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JP 1994-99332 A  
199404  
12

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OTHER SOURCE(S) : MARPAT 124:204000  
GI



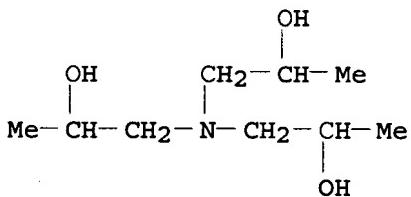
AB The title compns. comprise Mg halide catalyst residue-containing crystalline polyolefins (e.g., polypropylene, ethylene-propylene copolymer), 0.001-1 phr cyclic P compds. I [R = C1-4 alkylidene; X1-2 = (cyclo)alkylarylene, ar(alk)ylarylene], and 0.001-1 phr halogen adsorbers (e.g., aliphatic acid salts, alkanoyl lactic salts, aliphatic hydroxyacid salts, etc.).

IT 122-20-3, Triisopropanolamine

RL: MOA (Modifier or additive use); USES (Uses)  
(halogen adsorbers; transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

RN 122-20-3 HCPLUS

CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)

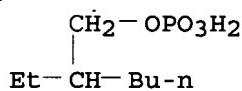


IT 116338-80-8

RL: MOA (Modifier or additive use); USES (Uses)  
(transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

RN 116338-80-8 HCPLUS

CN Phosphoric acid, mono(2-ethylhexyl) ester, magnesium salt (1:1) (9CI) (CA INDEX NAME)



● Mg

- IC ICM C08L023-00  
 ICS C08K005-00; C08K005-527  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 28  
 IT 68-04-2, Sodium citrate 100-97-0, Hexamethylenetetramine, uses 108-78-1, 2,4,6-Triamino-1,3,5-triazine, uses 110-30-5, N,N'-Ethylenebisstearamide 112-84-5, Erucamide 122-20-3, Triisopropanolamine 301-02-0, Oleamide 471-34-1, Calcium carbonate, uses 546-89-4, Lithium acetate 551-64-4, Zinc tartrate 814-80-2, Calcium lactate 1309-42-8, Magnesium hydroxide 1314-13-2, Zinc oxide, uses 1592-23-0, Calcium stearate 4508-49-0 4615-31-0, Zinc stearyl phosphate 11097-59-9, DHT-4A 39663-84-8, Lithium glycolate 51568-80-0, Calcium stearyl phosphate 52497-24-2 52829-07-9, Bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate 57532-25-9, Magnesium 12-hydroxyoctadecanoate 71878-19-8 85209-91-2, Sodium 2,2'-methylenebis(4,6-di-tert-butylphenyl) phosphate 90751-07-8 94945-28-5 106990-43-6 121236-27-9, Zinc montanate 173050-47-0  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (halogen adsorbers; transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)  
 IT 72-17-3, Sodium lactate 127-09-3, Sodium acetate 142-72-3, Magnesium acetate 546-93-0, Magnesium carbonate 557-04-0, Magnesium stearate 822-16-2, Sodium stearate 868-18-8, Sodium tartrate 1309-48-4, Magnesium oxide, uses 1555-53-9, Magnesium oleate 2836-32-0, Sodium glycolate 13329-67-4, Sodium 12-hydroxyoctadecanoate 15233-97-3 18200-72-1 25728-82-9, Sodium montanate 43168-33-8, Magnesium behenate 52258-46-5, Magnesium montanate 111010-83-4 116338-80-8 118337-09-0, 2,2'-Ethylidenebis(4,6-di-tert-butylphenyl) fluorophosphite 119735-73-8 119735-74-9 122757-26-0, 2,2'-Methylenebis(4,6-di-tert-butylphenyl) fluorophosphite 123651-05-8 133940-41-7 133949-89-0 147025-23-8 165597-51-3 165597-52-4 165597-53-5 165597-54-6 165597-55-7 165597-56-8 165597-57-9 165597-58-0 165597-59-1 165597-60-4 165597-61-5 174495-68-2 174495-69-3 174495-70-6 174495-71-7 174495-72-8 174495-73-9  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (transparent, rigid, heat-resistant, and resilient crystalline polyolefin compns.)

L40 ANSWER 8 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:777040 HCAPLUS  
 DOCUMENT NUMBER: 123:339057  
 TITLE: Direct anodic oxidation of p-methoxytoluene in methanol. Effect of electrolysis conditions  
 AUTHOR(S): Ogibin, Yu. N.; Illovaisky, A. I.; Merkulova, V. M.; Nikishin, G. I.  
 CORPORATE SOURCE: N. D. Zelinsky Institute Organic Chemistry, Russian Academy Sciences, Moscow, 117913, Russia

SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1995), (3), 524-7  
 CODEN: IASKEA

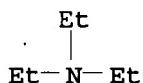
PUBLISHER: Nauka  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian

AB The effect of anions of supporting electrolytes ( $F^-$ , dialkylphosphate,  $TsO^-$  and  $BF_4^-$ ) on the selectivity of direct anodic oxidation of p-methoxytoluene (PMT) to 4-methoxybenzaldehyde dimethylacetal in MeOH was studied. The best results was observed with  $F^-$ .

IT 121-44-8, Triethylamine, uses 2870-30-6, Sodium diethyl phosphate 16298-74-1, Sodium dibutyl phosphate  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (anion effect on anodic oxidation of methoxytoluene)

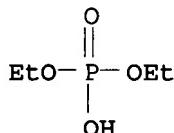
RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 2870-30-6 HCPLUS

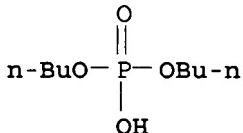
CN Phosphoric acid, diethyl ester, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 16298-74-1 HCPLUS

CN Phosphoric acid, dibutyl ester, sodium salt (1:1) (CA INDEX NAME)



● Na

CC 22-13 (Physical Organic Chemistry)  
 Section cross-reference(s): 25, 72

IT 121-44-8, Triethylamine, uses 149-73-5, Trimethoxymethane 429-42-5, Tetrabutylammonium tetrafluoroborate 733-44-8, Tetraethylammonium tosylate 2870-30-6, Sodium diethyl phosphate 7789-23-3, Potassium fluoride 15404-00-9,

4-Methylbenzenesulfonic acid compound with Triethylamine 16106-44-8,  
 Potassium tosylate 16298-74-1, Sodium dibutyl phosphate  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (anion effect on anodic oxidation of methoxytoluene)

L40 ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:729796 HCAPLUS  
 DOCUMENT NUMBER: 123:289459  
 TITLE: Phosphorus-containing polyester fibers, fabrics,  
 and their dyeing process  
 INVENTOR(S): Matsuoka, Takeshi; Araki, Yoshio; Ooguchi,  
 Masakatsu  
 PATENT ASSIGNEE(S): Toyo Boseki, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07118924	A	19950509	JP 1993-272033	199310 29

PRIORITY APPLN. INFO.: JP 1993-272033 199310  
29

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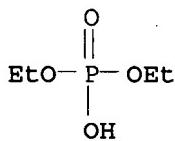
AB The title polyester fibers with retention of strength  $\geq 80\%$  are mainly composed of ethylene terephthalate as structure units and containing 0.05-4.0% (based on P) compds. selected from P(O)(OR1)(OR2)(OR3), P(O)R4(OR2)(OR3), and P(O)R4(OR2)(AR5) (I) (R1-3 = H, C1-18 monovalent organic group; R4 = C1-18 monovalent organic group; R5 = monovalent ester-formable functional group; A = C1-18 divalent organic group; I may form cyclic anhydrides in the mol.). The fibers and fabrics are dyed in a liquid with pH 5.0-6.5 in the presence of amine acetic acid salts. Thus, 1297 parts terephthalic acid and 1067 parts ethylene glycol were transesterified at 230° in the presence of Et<sub>3</sub>N and Sb<sub>2</sub>O<sub>3</sub> under H<sub>2</sub>O removal, blended with 11 parts of a 53:47 mixture of mono-Et phosphate and di-Et phosphate, stirred at 230° for 20 min, and polycondensed at 275° to give a polymer with intrinsic viscosity 0.57 containing P 0.57. A fabric obtained from the polymer was dyed in a bath containing 1.0% owf Dianix Blue AC-E 1 g/L Disper TL, mixture of AcOH, NaOAc, and buffer, and 6.0+10<sup>-3</sup> mol/L cyclohexylamine acetate at bath ratio 1:100 and at 130° for 1 h to give a test piece with good color.

IT 121-44-8, Triethylamine, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)

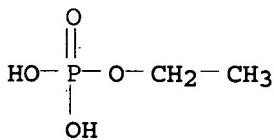
RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 598-02-7D, Diethyl phosphate, reaction products with poly(ethylene terephthalate) 1623-14-9D, Monoethyl phosphate, reaction products with poly(ethylene terephthalate)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)  
 RN 598-02-7 HCPLUS  
 CN Phosphoric acid, diethyl ester (CA INDEX NAME)



RN 1623-14-9 HCPLUS  
 CN Phosphoric acid, monoethyl ester (CA INDEX NAME)



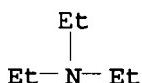
IC ICM D01F006-84  
 ICS D03D015-00; D04B001-16; D06P003-52  
 ICA C08G063-692  
 CC 40-2 (Textiles and Fibers)  
 IT 121-44-8, Triethylamine, uses 1641-36-7 5153-63-9  
 7346-79-4  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)  
 IT 598-02-7D, Diethyl phosphate, reaction products with poly(ethylene terephthalate) 1623-14-9D, Monoethyl phosphate, reaction products with poly(ethylene terephthalate) 25038-59-9D, PET, phosphorus-containing  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (P-containing PET-type polyester fibers and dyeing in presence of amine acetic acid salts)

L40 ANSWER 10 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:661100 HCPLUS  
 DOCUMENT NUMBER: 123:130110  
 TITLE: Adhesive composition for printed wiring boards,  
 laminates using it, and production of the wiring  
 boards  
 INVENTOR(S): Takanezawa, Shin; Irino, Tetsuro; Toshaka,  
 Yuji; Kagaya, Takashi  
 PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan

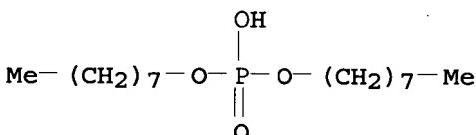
SOURCE: U.S., 5 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5419946	A	19950530	US 1994-314774	199409 29
JP 07170066	A	19950704	JP 1994-231959	199409 28
JP 3536937	B2	20040614	JP 1993-243455	A 199309 30
PRIORITY APPLN. INFO.:				

AB An adhesive composition containing a special internal mold release agent obtained from tri-, di-, or monoalkyl phosphates, the alkyl moiety having 6-18 C atoms, and an amine in addition to major components of an epoxy resin, acrylonitrile-butadiene rubber, an alkylphenol resin, and an inorg. filler is suitable for producing printed wiring boards by an additive process having excellent adhesion to plated Cu.  
 IT 121-44-8, Triethylamine, processes 3115-39-7,  
 Dioctyl phosphate  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (adhesive composition for printed wiring boards containing)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 3115-39-7 HCPLUS  
 CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



IC ICM B05D005-12  
 ICS B05D003-10; B32B005-16  
 INCL 428206000  
 CC 76-14 (Electric Phenomena)  
 IT 102-71-6, Triethanolamine, processes 121-44-8,

Triethylamine, processes 141-43-5, Monoethanolamine, processes 682-49-5, Trilauryl phosphate 2958-09-0, Monostearyl phosphate 3115-39-7, Dioctyl phosphate  
 RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (adhesive composition for printed wiring boards containing)

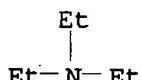
L40 ANSWER 11 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1995:661097 HCPLUS  
 DOCUMENT NUMBER: 123:231522  
 TITLE: Thermosetting compositions, thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability  
 INVENTOR(S): Ishidoya, Masahiro; Shibato, Kishio; Komoto, Keiji; Shibamoto, Kenji; Mashita, Mitsuyuki; Ohe, Osamu  
 PATENT ASSIGNEE(S): Nippon Oil and Fats Co., Ltd., Japan  
 SOURCE: U.S., 32 pp. Cont.-in-part of U.S. 5,352,740.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5419929	A	19950530	US 1992-948017	199209 21
JP 04218561	A	19920810	JP 1991-89510	199103 28
US 5352740	A	19941004	US 1991-680356	199104 04
CA 2040167	A1	19911011	CA 1991-2040167	199104 10
CA 2040167	C	19971216	<--	
JP 05320529	A	19931203	JP 1992-255847	199208 31
JP 2746005	B2	19980428	<--	
US 5516839	A	19960514	US 1994-260002	199406 15
US 5549932	A	19960827	US 1995-401198	199503 09
US 5660937	A	19970826	US 1995-401368	<--

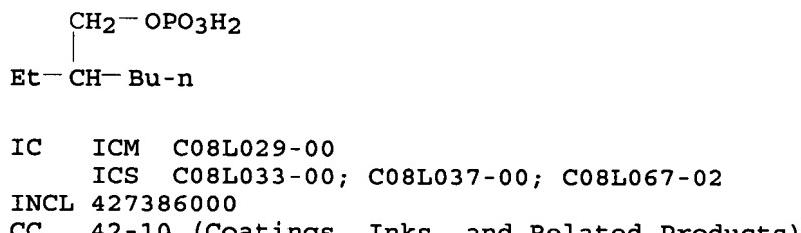
			199503
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US 5521011	A	19960528	<-- US 1995-444160
			199505
			18
US 5578677	A	19961126	<-- US 1995-578083
			199512
			27
PRIORITY APPLN. INFO.:		JP 1990-94267	A
			199004
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		JP 1990-259695	A
			199009
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		JP 1990-288776	A
			199010
			26
		JP 1991-89510	A
			199103
			28
		US 1991-680356	A2
			199104
			04
		JP 1991-283514	A
			199110
			03
		JP 1991-283515	A
			199110
			03
		JP 1991-287129	A
			199110
			07
		JP 1991-287130	A
			199110
			07
		JP 1992-91985	A
			199203
			18
		JP 1992-92240	A
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	JP 1992-97058	A
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	JP 1992-255847	A
		199208
		31
	<--	
	US 1992-948017	A3
		199209
		21
	<--	
	US 1994-260002	A3
		199406
		15

- AB Thermosetting composition comprises a compound having  $\geq 2$  carboxyl groups blocked by a vinyl (thio)ether or a heterocyclic compound having a vinyl type double bond and O or S as the hetero atom, a compound having  $\geq 2$  reactive groups which can form a chemical bond with the blocked carboxyl compound by heating, a specific vinyl (thio)ether, and optionally a thermal latent acid catalyst. The blocked carboxyl group of the first compound and the reactive functional group of the second compound may be in the same mol. A component compound was prepared by polymerization of methacrylic acid-Et vinyl ether reaction product (acid value <30) 167.2, Bu methacrylate 100, Me methacrylate 178.6, and 2-ethylhexyl acrylate 135.4 parts. A coating composition curable in 30 min at 120° comprised the above component compound 100, Denacol EX-421 15.5, titania 52.4, Moadaflow 0.3, xylene 7, BuOAc 2, and Pr vinyl ether 3.6 parts.
- IT 121-44-8, Triethylamine, uses 1070-03-7  
 RL: CAT (Catalyst use); USES (Uses)  
 (thermosetting compns., thermal latent acid catalysts, methods of coating and coated articles with good physicochem. properties, weather resistance and storage stability)
- RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- RN 1070-03-7 HCPLUS  
 CN Phosphoric acid, mono(2-ethylhexyl) ester (CA INDEX NAME)



IT 78-40-0, Triethyl phosphate 104-15-4, uses 109-02-4,  
 N-Methylmorpholine 110-86-1, Pyridine, uses 121-44-8,  
 Triethylamine, uses 149-57-5, 2-Ethylhexanoic acid 557-09-5,  
 Zinc octanoate 1070-03-7 7646-85-7, Zinc chloride, uses  
 7699-45-8, Zinc bromide 10041-19-7, Bis(2-ethylhexyl)  
 sulfosuccinate 120326-69-4, Dodecylbenzenesulfonic acid  
 N-methylmorpholine salt

RL: CAT (Catalyst use); USES (Uses)

(thermosetting compns., thermal latent acid catalysts, methods of  
 coating and coated articles with good physicochem. properties,  
 weather resistance and storage stability)

L40 ANSWER 12 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:561652 HCAPLUS

DOCUMENT NUMBER: 123:145729

TITLE: Curable polymer compositions with good storage  
 stability

INVENTOR(S): Ando, Naotami; Nakayama, Kazuya; Hatano,  
 Takanori

PATENT ASSIGNEE(S): Kanegafuchi Chemical Ind, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07053881	A	19950228	JP 1993-203337	199308 17

JP 3357929 B2 20021216

JP 1993-203337

199308

17

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PRIORITY APPLN. INFO.: JP 3357929 B2 20021216

JP 1993-203337

199308

17

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AB Title compns., giving crack-resistant coatings, comprise (A) polymer emulsions containing SiR<sub>1</sub>aX<sub>1</sub>-a (R<sub>1</sub> = C<sub>1</sub>-10 alkyl, aryl, aralkyl; X<sub>1</sub> = halo, alkoxy, OH, acyloxy, aminoxy, phenoxy, thioalkoxy, NH<sub>2</sub>; a = 0-2) and (B) mixts. or reaction products of water-soluble acidic phosphoric acid esters and amines. Thus, 10 parts 40%-solid copolymer emulsion of γ-methacryloxypropyltrimethoxysilane, Bu methacrylate, Me methacrylate, and Bu acrylate and 0.1 part mixture of MP 4 and 3-amino-1-propanol were mixed to give a composition showing viscosity 20 cP initially and 26 cP after 1 mo at 50°, which was applied on a glass sheet to give a film without cracks.

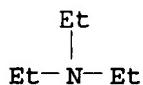
IT 121-44-8, uses 1623-15-0, MP 4

RL: TEM (Technical or engineered material use); USES (Uses)

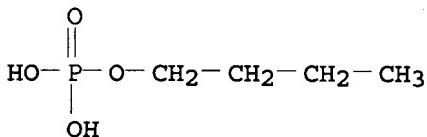
(crosslinking agents; curable silyl-containing polymer emulsions with good storage stability for crack-resistant coatings)

RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 1623-15-0 HCPLUS  
 CN Phosphoric acid, monobutyl ester (CA INDEX NAME)



IC ICM C08L101-10  
 ICS C08K005-17; C08K005-521  
 ICA C08F030-08  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 42  
 IT 121-44-8, uses 156-87-6 1623-15-0, MP 4  
 76483-21-1, AP 3 (phosphate)  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (crosslinking agents; curable silyl-containing polymer emulsions with  
 good storage stability for crack-resistant coatings)

L40 ANSWER 13 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1994:511265 HCPLUS  
 DOCUMENT NUMBER: 121:111265  
 TITLE: Two-part, room-temperature-curable silicone  
 compositions  
 INVENTOR(S): Somemiya, Toshio; Makino, Zyunzo  
 PATENT ASSIGNEE(S): Cemedine Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 563894	A1	19931006	EP 1993-105273	199303 30
EP 563894 R: DE, FR, GB JP 05331447	B1	19980107		<--
	A	19931214	JP 1993-5755	199301 18
JP 3332438	B2	20021007		<--
PRIORITY APPLN. INFO.:			JP 1992-76937	A 199203 31
				<--

JP 1993-5755

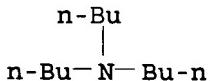
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199301

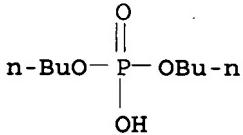
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- AB Title compns., useful for adhesives, coatings, gap-filters, and casting materials, contain high-mol.-weight reactive silicone and polymerization promoter for radically polymerizing monomer in 1 component and a radically polymerizing monomer, polymerization initiator, and a curing promoter for the high-mol.-weight reactive silicone in the other component. These compns. are rapidly curing and the cured products have flexibility equivalent to rubbers. Thus, a composition containing Silicone S-303 100, dicyclopentenyl methacrylate (I) 20, and cumene hydroperoxide 2 parts was mixed in a 1:1 ratio with a composition containing I 50, 2-hydroxypropyl methacrylate 50, V acetylacetone 0.05, hydroquinone 0.5, and 2-methacryloyloxyethyl phosphate 2 parts to give composition that exhibited setting time 6 min as an adhesive between steel plates, good flexibility as a coating on the steel plates, and uniform cure over the entire sample at the same time.
- IT 102-82-9, Tributylamine 107-66-4, Dibutyl phosphate  
 RL: **USES (Uses)**  
 (vulcanization accelerators, for 2-part room-temperature-curable silicone rubber compns. containing (meth)acrylates)
- RN 102-82-9 HCAPLUS  
 CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



- RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



- IC ICM C08F299-08  
 CC 39-10 (Synthetic Elastomers and Natural Rubber)  
 Section cross-reference(s): 38, 42  
 IT 67-51-6, 3,5-Dimethylpyrazole 77-58-7, Dibutyltin dilaurate  
 80-15-9, Cumene hydroperoxide 81-07-2, Saccharin 89-25-8,  
 3-Methyl-1-phenyl-5-pyrazolone 94-36-0, Benzoyl peroxide, uses  
 96-27-5 96-45-7, Ethylenethiourea 99-97-8, N,N-Dimethyl-p-toluidine 102-82-9, Tributylamine 107-66-4,  
 Dibutyl phosphate 919-30-2 1338-23-4, Methyl ethyl ketone peroxide 2530-85-0 4253-22-9, Dibutyltin sulfide 7440-48-4D, Cobalt, naphthenic acid salts 13476-99-8, Vanadium acetylacetone 22221-10-9, Copper 2-ethylhexanoate 24599-21-1 52628-03-2, 2-Methacryloyloxyethyl phosphate 83590-14-1, Vanox 808 154839-74-4  
 RL: **USES (Uses)**  
 (vulcanization accelerators, for 2-part room-temperature-curable silicone rubber compns. containing (meth)acrylates)

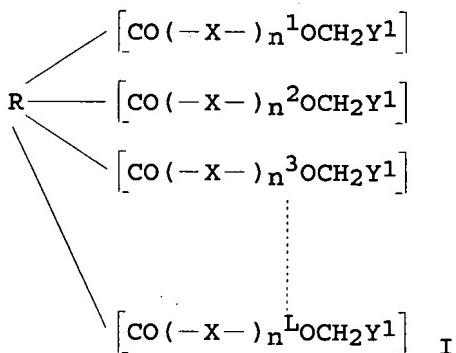
L40 ANSWER 14 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1992:196350 HCAPLUS  
 DOCUMENT NUMBER: 116:196350  
 TITLE: Lactone-modified alicyclic composition, and an epoxidized composition thereof  
 INVENTOR(S): Fujiwa, Takaaki; Takemoto, Shin; Isobe, Tomohisa; Harano, Yoshiyuki  
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 73 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 466596	A2	19920115	EP 1991-401935	199107 10
EP 466596	A3	19920916	<--	
EP 466596	B1	19941005		
R: CH, DE, FR, GB, IT, LI, NL				
JP 04069360	A	19920304	JP 1990-182124	199007 10
JP 2926262	B2	19990728	<--	
JP 04100819	A	19920402	JP 1990-216569	199008 17
JP 2916941	B2	19990705	<--	
JP 04170411	A	19920618	JP 1990-298482	199011 02
JP 2962805	B2	19991012	<--	
JP 04178378	A	19920625	JP 1990-305829	199011 09
JP 2869753	B2	19990310	<--	
US 5169965	A	19921208	US 1991-728114	199107 10
US 5198509	A	19930330	<--	
			US 1992-895360	199206 08
US 5338879	A	19940816	<--	
			US 1992-930094	199208 13
JP 11152251	A	19990608	<--	
			JP 1998-273810	199809

28

JP 3016428 PRIORITY APPLN. INFO.:	B2	20000306	JP 1990-182124	A	199007 10		
<--							
JP 1990-216569						A	199008 17
<--							
JP 1990-298482						A	199011 02
<--							
JP 1990-305829						A	199011 09
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US 1991-728114						A3	199107 10
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US 1992-895360						A3	199206 08
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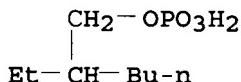
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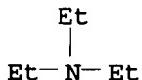
**AB** Title lactone-modified compns. comprise I ( $R = C1-30$  alkyl, aromatic, or alkenyl;  $Y1 = \geq 1$  of 3-cyclohexenyl, 1-methyl-3-cyclohexenyl, 6-methyl-3-cyclohexenyl;  $X =$  lactone-derived group  $O(CR1R2)cCO$  and/or  $O(CR1R2)dCO$  where  $R1, R2$  are independently H and Me, c and d are independently 4-8 integers, and  $n1$  to  $nL$  is  $\geq 0$ , resp.,  $n1 + n2 + n3 \dots nL$  is  $\geq 1$ , which correspond to total moles lactone introduced,  $L = \geq 2$ ). In I,  $\geq 1$  of  $Y1$  can be epoxidized. The compns. are heat-curable, photocurable, or photo-cationically curable. Thus, a caprolactone is adducted with 3-cyclohexene-1-methanol (II) and the adduct is reacted with 1,2,3,4-butanetetracarboxylic acid to give I ( $n1 + n2 + n3 + n4 = 3$  and  $Y1 = 3$ -cyclohexenyl) (III). III under N in EtOAc was epoxidized with ACOOH in presence of 2-ethylhexyl Na tripolyphosphate at  $40^\circ$  to give product by epoxidn. of the

cyclohexenyl rings. The epoxy compds. were photocurable with Degacure K126 (photo-cationic initiator) at 80 W/cm at 6.5 cm for 100 s to give a cured plate or the epoxy compds. were used in coatings.

- IT 31044-12-9, Sodium 2-ethylhexyl phosphate  
 RL: **USES (Uses)**  
     (additives, for epoxidn. of lactone-modified alicyclic compds.)  
 RN 31044-12-9 HCPLUS  
 CN Phosphoric acid, mono(2-ethylhexyl) ester, sodium salt (1:?) (CA INDEX NAME)



- IT 121-44-8, Triethylamine, uses  
 RL: CAT (Catalyst use); **USES (Uses)**  
     (catalysts, for reaction of acrylic acids with epoxy compds.)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- IC ICM C07C069-608  
 ICS C07D303-40; C07C069-34; C07C067-02; C07D301-03; C08G059-20  
 CC 42-9 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 35  
 IT 1693-78-3, 2-Ethylhexyl pyrophosphate 2466-09-3, Pyrophosphoric acid 7320-34-5, Potassium pyrophosphate 7632-05-5, Sodium pyrophosphate 7664-38-2, Phosphoric acid, miscellaneous 7722-88-5 7758-29-4, Sodium tripolyphosphate 7783-28-0, Ammonium hydrogen phosphate 10380-08-2, Tripolyphosphoric acid 13845-36-8, Potassium tripolyphosphate 16068-46-5, Potassium phosphate 31044-12-9, Sodium 2-ethylhexyl phosphate 68550-93-6  
 RL: **USES (Uses)**  
     (additives, for epoxidn. of lactone-modified alicyclic compds.)  
 IT 121-44-8, Triethylamine, uses  
 RL: CAT (Catalyst use); **USES (Uses)**  
     (catalysts, for reaction of acrylic acids with epoxy compds.)

L40 ANSWER 15 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:231898 HCPLUS  
 DOCUMENT NUMBER: 114:231898  
 TITLE: Lubricating oil composition  
 INVENTOR(S): Yamazaki, Akira; Kawaji, Isamu; Sakakibara, Tadamori  
 PATENT ASSIGNEE(S): Tonen Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 27 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 407124	A1	19910109	EP 1990-307209	199007 02
R: DE, FR, GB JP 03039396	A	19910220	JP 1989-174259	198907 07
JP 03039397	A	19910220	JP 1989-174260	198907 07
JP 03039400	A	19910220	JP 1989-174261	198907 07
JP 03039398	A	19910220	JP 1989-174262	198907 07
JP 2845498	B2	19990113	JP 1989-174259	A 198907 07
PRIORITY APPLN. INFO.:				
			JP 1989-174260	A 198907 07
			JP 1989-174261	A 198907 07
			JP 1989-174262	A 198907 07
				<--

OTHER SOURCE(S): MARPAT 114:231898

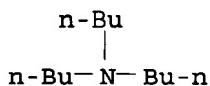
AB A lubricating oil composition is prepared by incorporating a phosphoric acid ester, a phosphorous acid ester, and their amine salts and an aliphatic dicarboxylic acid into a base oil, or further incorporating an alkylamine and/or succinimide or perbasic Mg or Ca sulfonate. The lubricating oil can be used for automatic transmission of an automobile.

IT 102-82-9, Tributylamine 107-66-4, Dibutylphosphate 107-66-4D, Dibutylphosphate, amine salts 3115-39-7, Dioctyl phosphate 7057-92-3, Dilauryl phosphate

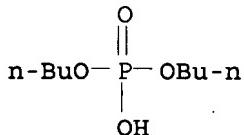
RL: USES (Uses)  
(friction modifier, lubricating oils containing, for automatic transmission)

RN 102-82-9 HCAPLUS

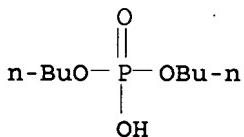
CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



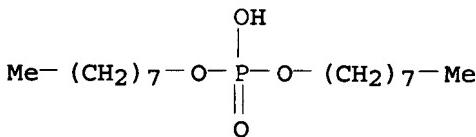
RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



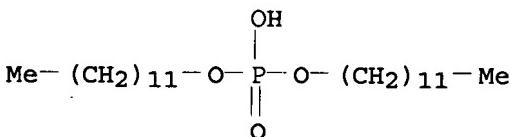
RN 107-66-4 HCAPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



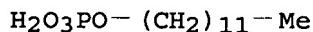
RN 3115-39-7 HCAPLUS  
 CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



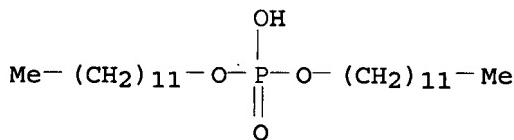
RN 7057-92-3 HCAPLUS  
 CN Phosphoric acid, didodecyl ester (CA INDEX NAME)



IT 2627-35-2D, Monolaurylphosphate, amine salts  
 7057-92-3D, Dilauryl phosphate, amine salts  
 RL: USES (Uses)  
 (friction modifiers, lubricating oils containing, for automatic  
 transmission)  
 RN 2627-35-2 HCAPLUS  
 CN Phosphoric acid, monododecyl ester (CA INDEX NAME)



RN 7057-92-3 HCAPLUS  
 CN Phosphoric acid, didodecyl ester (CA INDEX NAME)



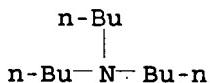
- IC ICM C10M141-10  
 ICS C10M163-00; C10M169-04
- ICI C10M141-10, C10M129-42, C10M129-76, C10M133-04, C10M133-56,  
 C10M135-24, C10M137-02, C10M137-04, C10M137-08; C10M163-00,  
 C10M129-42, C10M129-76, C10M133-04, C10M133-56, C10M135-24,  
 C10M137-02, C10M137-04
- CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
- IT 102-79-4, Butyldiethanolamine 102-82-9, Tributylamine  
 102-86-3, Trihexylamine 102-87-4, Trilaurylamine 102-88-5,  
 Tristearylamine 107-66-4, Dibutylphosphate  
 107-66-4D, Dibutylphosphate, amine salts 109-73-9,  
 Butylamine, uses and miscellaneous 110-58-7, Pentyllamine  
 111-16-0, Heptanedioic acid 111-20-6, Decanedioic acid, uses and  
 miscellaneous 111-26-2, Hexylamine 111-42-2, Diethanolamine,  
 uses and miscellaneous 111-86-4, Octylamine 111-92-2,  
 Dibutylamine 112-90-3, Oleylamine 112-99-2, Distearylamine  
 120-07-0, Phenyldiethanolamine 122-98-5 123-99-9, Azelaic acid,  
 uses and miscellaneous 124-04-9, Hexanedioic acid, uses and  
 miscellaneous 124-22-1, Laurylamine 124-30-1, Stearylamine  
 143-16-8, Dihexylamine 505-48-6, Suberic acid 621-77-2,  
 Tripentylamine 693-23-2, Dodecanedioic acid 821-38-5,  
 Tetradecanedioic acid 871-70-5, Octadecanedioic acid 1116-76-3,  
 Trioctylamine 1120-48-5, Dioctylamine 1541-67-9,  
 Lauryldiethanolamine 2050-51-3 2050-92-2, Dipentylamine  
 2424-92-2, Eicosanedioic acid 3007-31-6, Dilaurylamine  
 3115-39-7, Dioctyl phosphate 5345-94-8 6708-53-8,  
 Triacontanedioic acid 7057-92-3, Dilauryl phosphate  
 7722-71-6 13127-82-7 14450-07-8, Dioleyl phosphate 15196-28-8  
 21514-82-9 31314-15-5 31314-16-6 31314-17-7 35841-98-6  
 37519-50-9 68810-31-1, Dipropanolamine 72648-60-3 132935-41-2  
 132950-91-5 133119-26-3 133119-27-4 133119-28-5 133946-85-7
- RL: USES (Uses)  
 (friction modifier, lubricating oils containing, for automatic  
 transmission)
- IT 2627-35-2D, Monolaurylphosphate, amine salts  
 7057-92-3D, Dilauryl phosphate, amine salts 7664-38-2D,  
 Phosphoric acid, monoalkyl esters, amine salts 14450-07-8D,  
 Dioleyl phosphate, amine salts
- RL: USES (Uses)  
 (friction modifiers, lubricating oils containing, for automatic  
 transmission)

L40 ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1991:8026 HCAPLUS  
 DOCUMENT NUMBER: 114:8026  
 TITLE: Coextrudable polyolefin adhesive compositions

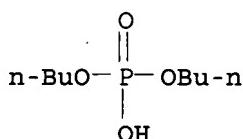
and their use  
 INVENTOR(S): Wong, Chun Sing  
 PATENT ASSIGNEE(S): Du Pont Canada, Inc., Can.  
 SOURCE: Brit. UK Pat. Appl., 19 pp.  
 CODEN: BAXXDU  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 2228488	A	19900829	GB 1989-4438	198902 27
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GB 2228488	B	19920325	<--	-----
CA 2010839	A1	19900827	CA 1990-2010839	199002 23
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US 5115033	A	19920519	US 1990-485708	199002 27
-----	-----	-----	-----	-----
PRIORITY APPLN. INFO.:			GB 1989-4438	A
				198902 27
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- AB The title adhesives, useful for bonding dissimilar materials (especially polar and nonpolar polymers), contain C<sub>2</sub>H<sub>4</sub>-unsatd. carboxylic acid copolymers, their metal salts, or polyolefins grafted with unsatd. carboxylic acids or anhydrides; and adhesion promoters (alkyl phosphates, alkylamines, heterocyclic amines, or amino acids or their salts). Thus, coextruding a mixture of linear low-d. polyethylene (I), maleated (1%) I, and 50 ppm Bu<sub>3</sub>N with C<sub>2</sub>H<sub>4</sub>-vinyl alc. copolymer at 200-210° gave a film with 180° peel adhesion 240 g/cm; vs. 105 without Bu<sub>3</sub>N.
- IT 102-82-9, Tributylamine 107-66-4, Dibutylphosphate  
 RL: USES (Uses)  
 (couplers, for polyolefin blend adhesives)
- RN 102-82-9 HCPLUS
- CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)

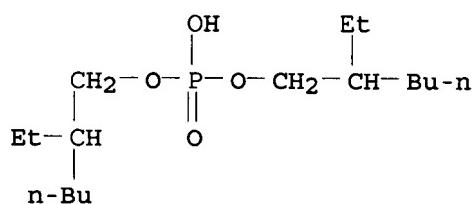


- RN 107-66-4 HCPLUS  
 CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



IC ICM C09J123-00  
 ICS C08K005-17; C08K005-34; C08K005-52; C08K005-521; C08L023-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 IT 51-17-2, Benzimidazole 71-00-1, L-Histidine, uses and  
 miscellaneous 91-22-5, Quinoline, uses and miscellaneous  
 102-82-9, Tributylamine 107-66-4, Dibutylphosphate  
 1116-76-3 6000-44-8, Glycine sodium salt 7664-38-2D, Phosphoric  
 acid, alkyl esters  
 RL: USES (Uses)  
 (couplers, for polyolefin blend adhesives)

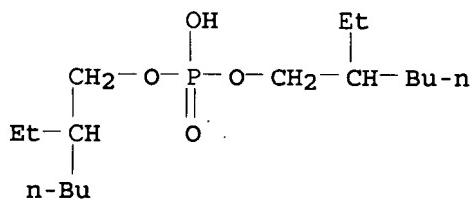
L40 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1990:632114 HCAPLUS  
 DOCUMENT NUMBER: 113:232114  
 TITLE: Homogeneous rare earth coordination catalysts  
 for copolymerization of styrene with  
 acrylonitrile  
 AUTHOR(S): Yang, Mujie; Xu, Jinlong; Shen, Zhiqian  
 CORPORATE SOURCE: Dep. Chem., Zhejiang Univ., Hangzhou, Peop. Rep.  
 China  
 SOURCE: Journal of Polymer Science, Part A: Polymer  
 Chemistry (1990), 28(12), 3231-40  
 CODEN: JPACEC; ISSN: 0887-624X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Acrylonitrile (I) was polymerized with styrene (II) in presence of  
 homogeneous rare earth coordination catalysts, ML<sub>3</sub>-Al(iso-Bu)<sub>3</sub>-CCl<sub>4</sub>,  
 where M is a lanthanide metal and L is a ligand. The kinetics of  
 the polymerization in presence of Nd phosphonate-Al(iso-Bu)<sub>3</sub>-CCl<sub>4</sub> catalysts  
 were determined. The catalytic activity of rare earth elements in  
 lanthanide phosphonate-containing catalysts and ligands in NdL<sub>3</sub>-containing  
 catalysts for the copolymer. were in the following orders: Yb > Er >  
 Tb .apprx. Tm > Ho > Ce > Lu .apprx. Sm .apprx. La > Pr > Nd, and Nd  
 (naphthenate)<sub>3</sub> > Nd phosphonates > Nd (acetylacetone)<sub>3</sub>, resp. The  
 I-II copolymers had alternating structure and softening points of  
 195-230°.  
 IT 23184-57-8 26312-52-7 38326-04-4  
 38326-05-5 45324-94-5 45324-95-6  
 45324-97-8 79950-30-4 79950-31-5  
 79950-32-6 100477-70-1  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing triisobutylaluminum and carbon tetrachloride,  
 for alternating copolymer. of acrylonitrile with styrene)  
 RN 23184-57-8 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, samarium(3+) salt (8CI,  
 9CI) (CA INDEX NAME)



## ● 1/3 Sm(III)

RN 26312-52-7 HCAPLUS

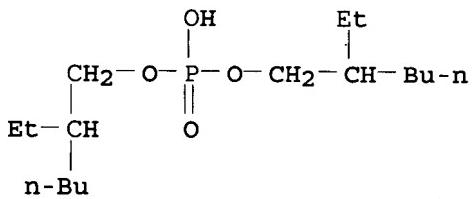
CN Phosphoric acid, bis(2-ethylhexyl) ester, thulium(3+) salt (8CI, 9CI) (CA INDEX NAME)



## ● 1/3 Tm(III)

RN 38326-04-4 HCAPLUS

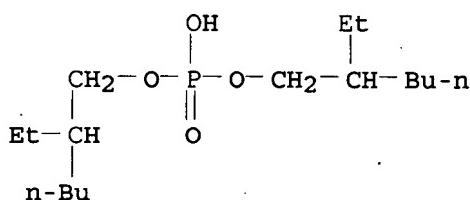
CN Phosphoric acid, bis(2-ethylhexyl) ester, neodymium(3+) salt (3:1) (CA INDEX NAME)



## ● 1/3 Nd(III)

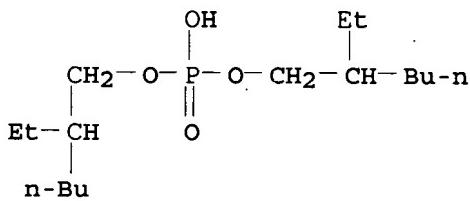
RN 38326-05-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, ytterbium(3+) salt (9CI) (CA INDEX NAME)



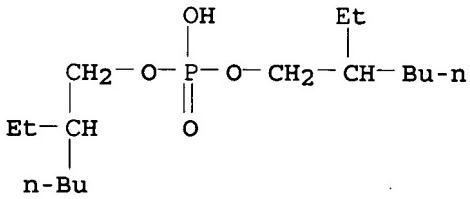
## ● 1/3 Yb(III)

RN 45324-94-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, holmium(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 Ho(III)

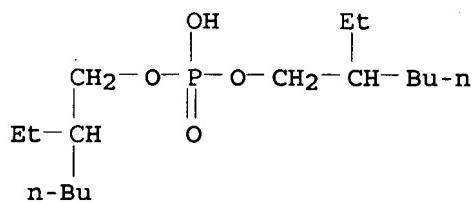
RN 45324-95-6 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, lanthanum(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 La(III)

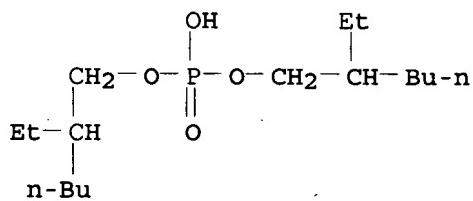
RN 45324-97-8 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, praseodymium(3+) salt  
(9CI) (CA INDEX NAME)



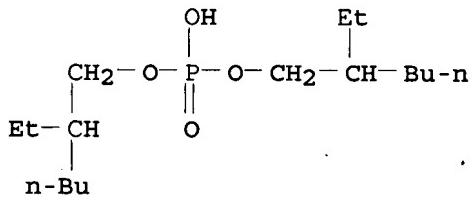
## ● 1/3 Pr(III)

RN 79950-30-4 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, terbium(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 Tb(III)

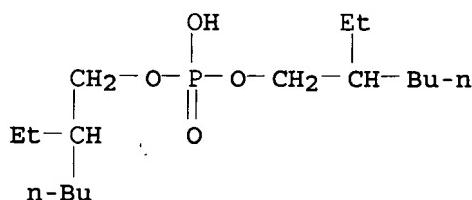
RN 79950-31-5 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, erbium(3+) salt (9CI)  
(CA INDEX NAME)

## ● 1/3 Er(III)

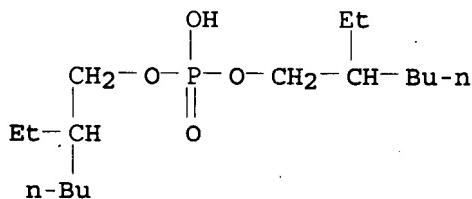
RN 79950-32-6 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, lutetium(3+) salt (9CI)  
(CA INDEX NAME)



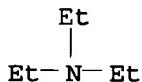
## ● 1/3 Lu(III)

RN 100477-70-1 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA INDEX NAME)



## ● 1/3 Ce(III)

IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing triisobutylaluminum and neodymium phosphonate,  
 for alternating copolymer. of acrylonitrile with styrene)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



CC 35-3 (Chemistry of Synthetic High Polymers)  
 IT 7440-00-8D, Neodymium, naphthenates 14589-38-9 23184-57-8  
 26312-52-7 38326-04-4 38326-05-5  
 45324-94-5 45324-95-6 45324-97-8  
 79321-05-4 79950-30-4 79950-31-5  
 79950-32-6 100477-70-1  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing triisobutylaluminum and carbon tetrachloride,  
 for alternating copolymer. of acrylonitrile with styrene)  
 IT 67-66-3, uses and miscellaneous 68-12-2, uses and miscellaneous  
 75-09-2, uses and miscellaneous 121-44-8, uses and  
 miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing triisobutylaluminum and neodymium phosphonate,  
 for alternating copolymer. of acrylonitrile with styrene)

L40 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1988:76093 HCAPLUS  
 DOCUMENT NUMBER: 108:76093  
 TITLE: Crystalline block copolymer and process for producing the same  
 INVENTOR(S): Takeshi, Ikematu; Hideo, Morita; Akiyoshi, Hirata  
 PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 46 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

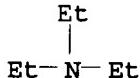
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 234512	A2	19870902	EP 1987-102388	198702 19
EP 234512	A3	19890517	<--	
EP 234512	B1	19960522		
R: BE, DE, ES, FR, GB, IT				
JP 62192416	A	19870824	JP 1986-33945	198602 20
JP 03064526	B	19911007	<--	
JP 62215616	A	19870922	JP 1986-57096	198603 17
JP 03064527	B	19911007	<--	
JP 62275114	A	19871130	JP 1986-117188	198605 23
JP 04003761	B	19920124	<--	
ES 2087057	T3	19960716	ES 1987-102388	198702 19
US 5159022	A	19921027	US 1991-703698	199105 21
PRIORITY APPLN. INFO.:			JP 1986-33945	A
				198602 20
			JP 1986-57096	A
				198603 17
			JP 1986-117188	A
				198605 23

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US 1987-17235 B1  
198702  
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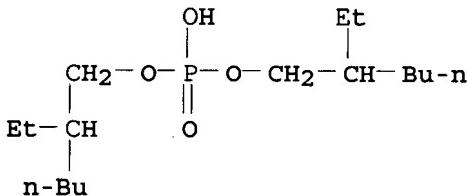
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US 1989-342653 B1  
198904  
25

&lt;--

- AB Block copolymers containing  $\geq 1$  crystalline 1,4-trans conjugated diene polymer block sandwiched between  $\geq 2$  vinylarom. hydrocarbon blocks (glass temperature  $\geq 50^\circ$ ) are prepared using a composite catalyst containing (A) organic Ba or Sr compds., (B) organic Li compds., (C) organic Mg compds., and optionally (D) organic Al or Zn compds. Thus, a mixture containing 1.5 kg cyclohexane solution (containing 20% styrene), 0.0113 mol Bu<sub>2</sub>Mg, 0.0113 mol sec-BuLi and 0.034 mol THF was heated at 65° for 3 h to give polystyrene at 100% conversion, mixed with 0.0023 mol bis(2-ethylhexyl)phosphate of lanthanum metal, and 3.5 kg cyclohexane solution (containing 20% 1,3-butadiene), heated at 65° for 3 h to give a diblock polymer (number-average mol. weight 32,600), and finally coupled with di-Ph carbonate at 65° for 1 h to give a polymer (number-average mol. weight 64,000) with elongation 700%, resilience 58%, shape recovery temperature 60°, and shape recovery 95%, vs. 180, 56, not recovered, and 40, resp., for a similar run without using coupling agents.
- IT 121-44-8, uses and miscellaneous 23184-57-8  
38326-04-4 45324-97-8 79950-28-0  
79950-29-1 100477-70-1 112667-44-4D,  
lanthanide salts 112673-79-7  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, for polymerization of styrene and dienes, for manufacture of  
crystalline block copolymers)
- RN 121-44-8 HCPLUS  
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



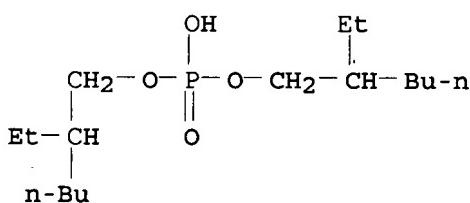
- RN 23184-57-8 HCPLUS  
CN Phosphoric acid, bis(2-ethylhexyl) ester, samarium(3+) salt (8CI,  
9CI) (CA INDEX NAME)



●1/3 Sm(III)

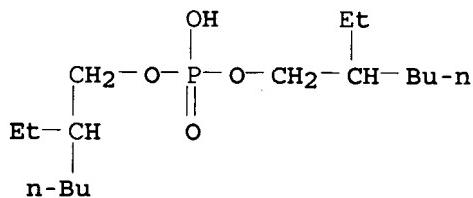
- RN 38326-04-4 HCPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester, neodymium(3+) salt (3:1)  
 (CA INDEX NAME)



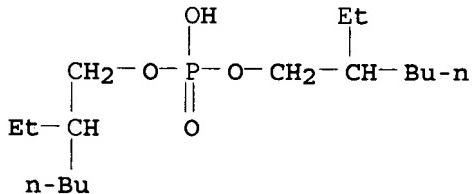
● 1/3 Nd(III)

RN 45324-97-8 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, praseodymium(3+) salt  
 (9CI) (CA INDEX NAME)



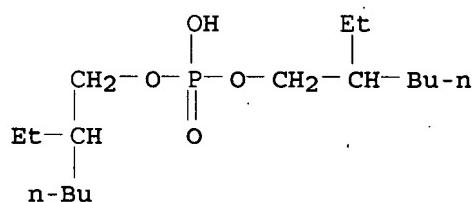
● 1/3 Pr(III)

RN 79950-28-0 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, europium(3+) salt (9CI)  
 (CA INDEX NAME)



● 1/3 Eu(III)

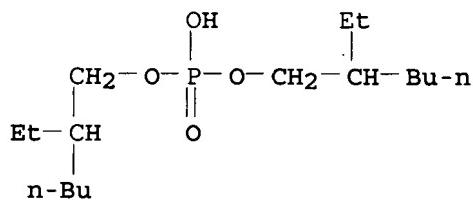
RN 79950-29-1 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, gadolinium(3+) salt (9CI)  
 (CA INDEX NAME)



## ● 1/3 Gd(III)

RN 100477-70-1 HCPLUS

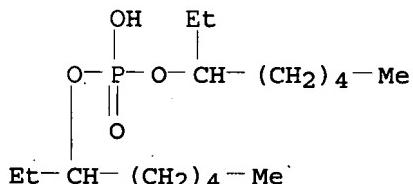
CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA INDEX NAME)



## ● 1/3 Ce(III)

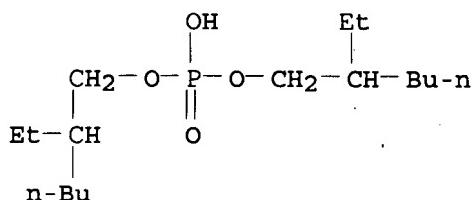
RN 112667-44-4 HCPLUS

CN 3-Octanol, hydrogen phosphate (9CI) (CA INDEX NAME)



RN 112673-79-7 HCPLUS

CN 1-Hexanol, 2-ethyl-, hydrogen phosphate, promethium(3+) salt (9CI) (CA INDEX NAME)



## ●1/3 Pm(III)

IC ICM C08F297-00  
 CC 35-4 (Chemistry of Synthetic High Polymers)  
 IT 97-93-8, uses and miscellaneous 100-99-2, uses and miscellaneous  
 109-99-9, uses and miscellaneous 121-44-8, uses and  
 miscellaneous 149-57-5D, lanthanide salts 557-20-0 598-30-1  
 871-27-2 1116-73-0 1191-47-5, Dibutyl magnesium 1854-19-9  
 2388-10-5 2397-67-3 13525-99-0D, lanthanide salts 14802-03-0D,  
 lanthanide salts 23184-57-8 25154-52-3D, lanthanide  
 salts 26206-66-6D, lanthanide salts 28575-89-5 28987-17-9  
 31291-42-6 37411-25-9 38326-04-4 45324-97-8  
 62202-86-2, Butylethyl magnesium 79950-28-0  
 79950-29-1 84348-31-2 84370-80-9 96024-62-3, Magala  
 7.5E 100477-70-1 105937-59-5, Lanthanum  
 bis(2-ethylhexyl)phosphate 112667-44-4D, lanthanide salts  
 112673-79-7 112673-80-0 112673-81-1 112673-82-2  
 112673-83-3  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of styrene and dienes, for manufacture of  
 crystalline block copolymers)

L40 ANSWER 19 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1987:407824 HCPLUS  
 DOCUMENT NUMBER: 107:7824  
 TITLE: Titanium slurries for polyesters  
 INVENTOR(S): Watanabe, Katsumi; Ueda, Tomoaki; Okasaka,  
 Hidesada  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62018423	A	19870127	JP 1985-156382	198507 16

PRIORITY APPLN. INFO.: JP 1985-156382  
 198507  
16

AB Fine granules of Ti oxide having primary granular diameter <2 μ are

dispersed in glycols with high-shear dispersing apparatus using P compds. and alkalies as dispersants. TiO<sub>2</sub> was dispersed in ethylene glycol (I) in the presence of H<sub>3</sub>PO<sub>4</sub> and Et<sub>4</sub>NOH and used in the manufacture of di-Me terephthalate-I copolymer.

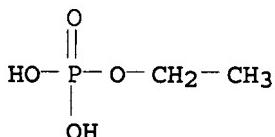
IT 1623-14-9, Monoethyl phosphate

RL: USES (Uses)

(dispersing agents, containing alkalies, for titanium oxide in ethylene glycol)

RN 1623-14-9 HCPLUS

CN Phosphoric acid, monoethyl ester (CA INDEX NAME)



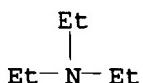
IT 121-44-8, uses and miscellaneous

RL: USES (Uses)

(dispersing agents, containing phosphorus compds., for titanium oxide in ethylene glycol)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C08G063-22

CC 35-4 (Chemistry of Synthetic High Polymers)

IT 1623-14-9, Monoethyl phosphate 7601-54-9, Trisodium phosphate 7664-38-2, uses and miscellaneous 7722-88-5  
13011-54-6, Ammonium sodium hydrogen phosphate 50813-16-6, Sodium metaphosphate

RL: USES (Uses)

(dispersing agents, containing alkalies, for titanium oxide in ethylene glycol)

IT 77-98-5, Tetraethylammonium hydroxide 121-44-8, uses and miscellaneous 1310-58-3, Potassium hydroxide, uses and miscellaneous 1310-73-2, Sodium hydroxide, uses and miscellaneous 1336-21-6, Ammonium hydroxide

RL: USES (Uses)

(dispersing agents, containing phosphorus compds., for titanium oxide in ethylene glycol)

L40 ANSWER 20 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1987:102831 HCPLUS

DOCUMENT NUMBER: 106:102831

TITLE: Onium salt catalysts for polymerization of thermosetting polycarbonates

INVENTOR(S): Mues, Peter; Kerimis, Dimitrios; Mueller, Hanns Peter; Buysch, Hans Josef

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 7 pp.

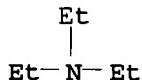
CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

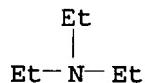
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3523399	A1	19870108	DE 1985-3523399	198506 29
EP 209722	A1	19870128	EP 1986-108236	198606 16
EP 209722 R: DE, FR, GB, IT, NL US 4707539	B1 A	19880831 19871117	US 1986-875602	198606 18
JP 62004723	A	19870110	JP 1986-147239	198606 25
PRIORITY APPLN. INFO.:			DE 1985-3523399	A 198506 29

AB Thermosetting polycarbonates are prepared by ring-opening polymerization of cyclic carbonates with bifunctional, crosslinking cyclic carbonates in the presence of the onium salts R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>R<sub>4</sub>L OnP(O)Y<sub>2</sub>-nY<sub>1</sub> (L = N, P; R<sub>1</sub> = H, hydrocarbyl; R<sub>2</sub>-4 = H, hydrocarbyl, or form a ring; Y, Y<sub>1</sub> = alkoxy, aryloxy, alkylthio, alkyl, aryl; n = 1 or 2) as catalysts. A mixture of neopentyl glycol cyclic carbonate 90, 4-ethyl-4-(hydroxymethyl)-1,3-dioxan-2-one carbonate (2:1) 10, and Et<sub>3</sub>N·MePO(OMe)<sub>2</sub> 0.1 part, heated at 150°, solidified in 5-10 min to give a clear, tough, elastic, strong polycarbonate.  
 IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing phosphate esters, for polymerization of cyclic carbonates)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

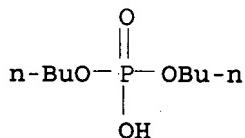


IT 86695-30-9, Triethylaminedibutylphosphate  
 107070-32-6 107070-33-7,  
 Diethylaminedimethylphosphate 107070-34-8,  
 Dibutylaminedimethylphosphate  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of cyclic carbonates)  
 RN 86695-30-9 HCPLUS  
 CN Phosphoric acid, dibutyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8  
CMF C6 H15 N

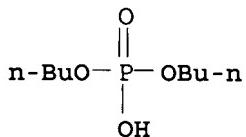
CM 2

CRN 107-66-4  
CMF C8 H19 O4 P

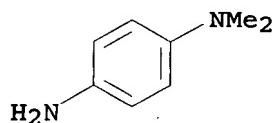
RN 107070-32-6 HCAPLUS

CN Phosphoric acid, dibutyl ester, compd. with N,N-dimethyl-1,4-benzenediamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 107-66-4  
CMF C8 H19 O4 P

CM 2

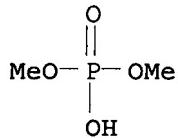
CRN 99-98-9  
CMF C8 H12 N2

RN 107070-33-7 HCAPLUS

CN Phosphoric acid, dimethyl ester, compd. with N-ethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 813-78-5  
 CMF C2 H7 O4 P



CM 2

CRN 109-89-7  
 CMF C4 H11 N

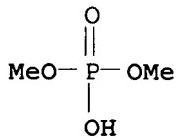


RN 107070-34-8 HCPLUS

CN Phosphoric acid, dimethyl ester, compd. with N-butyl-1-butanamine  
 (1:1) (9CI) (CA INDEX NAME)

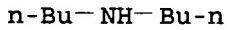
CM 1

CRN 813-78-5  
 CMF C2 H7 O4 P



CM 2

CRN 111-92-2  
 CMF C8 H19 N



IC ICM C08G063-62  
 ICS C08G063-38

CC 35-3 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 67

IT 96-54-8, 1-Methylpyrrole 98-94-2, N,N-Dimethylcyclohexylamine  
 103-83-3, N,N-Dimethylbenzylamine 109-02-4, 4-Methylmorpholine  
 111-92-2, Dibutylamine 121-44-8, uses and miscellaneous  
 280-57-9, Triethylenediamine 998-40-3, Tributylphosphine  
 3001-72-7 6674-22-2, 1,8-Diazabicyclo[5.4.0]undec-7-ene

RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing phosphate esters, for polymerization of cyclic carbonates)

IT 86695-30-9, Triethylaminedibutylphosphate

107070-32-6 107070-33-7,

Diethylaminedimethylphosphate 107070-34-8,

Dibutylaminedimethylphosphate

RL: CAT (Catalyst use); USES (Uses)

(catalysts, for polymerization of cyclic carbonates)

L40 ANSWER 21 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1986:592261 HCAPLUS

DOCUMENT NUMBER: 105:192261

TITLE: Thermosetting epoxy resin mixtures

INVENTOR(S): Kerimis, Dimitrios; Mueller, Hanns Peter;

Uerdingen, Walter; Heine, Heinrich

PATENT ASSIGNEE(S): Bayer A.-G. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 37 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3447251	A1	19860626	DE 1984-3447251	198412 22
EP 191926	A1	19860827	EP 1985-115637	198512 09
EP 191926 R: CH, DE, FR, GB, IT, LI US 4689376	B1 A	19900131 19870825	1985-808176	198512 12
JP 61155422	A	19860715	JP 1985-283146	198512 18
JP 05070650	B	19931005	DE 1984-3447251	198412 22
PRIORITY APPLN. INFO.:			A	

OTHER SOURCE(S): MARPAT 105:192261

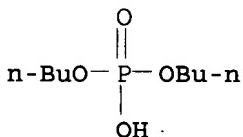
AB Amine or quaternary ammonium (thio)phosph(on)ates are useful as latent catalysts for the crosslinking of epoxy resins by anhydrides. Thus, stirring 112 parts triethylenediamine and 1240 parts MePO(OMe)2 at 100° for 8 h and stripping in vacuo gave 355 parts colorless, crystalline salt. A mixture of diglycidyl 1,2-cyclohexanedicarboxylate (viscosity 900 mPa-s at 25°) 100, methylhexahydrophthalic anhydride 100, and this salt 2 parts had viscosity 540, 750, 780, 1000, and 3200 mPa-s after 0, 1, 2, 4, and 11 days, resp., at 25° and gel time at 160° 125 s,

compared with 510, 2480, 27,200, tough, solid, and 56, resp., with PhCH<sub>2</sub>NMe<sub>2</sub> as catalyst.

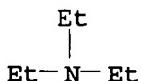
IT 107-66-4D, reaction products with amines 121-44-8D  
, reaction products with phosphonate esters  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, latent, for crosslinking of epoxy resins)

RN 107-66-4 HCPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



RN 121-44-8 HCPLUS  
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C08L063-00  
ICS C08K005-09; C08K005-17; C08K005-49; C08J003-24; C08G059-68;  
C08G059-42; H01B003-40

CC 37-6 (Plastics Manufacture and Processing)

IT 103-83-3D, reaction products with phosphonate esters  
107-66-4D, reaction products with amines 111-92-2D,  
reaction products with phosphonate esters 121-44-8D,  
reaction products with phosphonate esters 280-57-9D, reaction  
products with phosphonate esters 756-79-6D, reaction products with  
amines  
RL: CAT (Catalyst use); USES (Uses)  
(catalysts, latent, for crosslinking of epoxy resins)

L40 ANSWER 22 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 1986:406978 HCPLUS  
DOCUMENT NUMBER: 105:6978  
TITLE: Butadiene polymers with specified microstructure  
and properties  
INVENTOR(S): Ikematsu, Takeshi; Hattori, Yasuo; Inoki,  
Yoshihiro; Tanaka, Mitsuhiro  
PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan  
SOURCE: Ger. Offen., 64 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

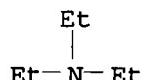
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 3523613	A1	19860116	DE 1985-3523613	198507 02

DE 3523613	C2	19930121	<--	
JP 61016753	A	19860124	JP 1984-136455	198407 03
JP 61019611	A	19860128	JP 1984-138950	198407 06
JP 03070726	B	19911108	<--	
JP 61097311	A	19860515	JP 1984-217296	198410 18
JP 03059083	B	19910909	<--	
FR 2567135	A1	19860110	FR 1985-9957	198506 28
FR 2567135	B1	19890113	<--	
GB 21611169	A	19860108	GB 1985-16627	198507 01
GB 21611169	B	19880420	<--	
DE 3546753	C2	19921112	DE 1985-3546753	198507 02
US 4931376	A	19900605	US 1989-387428	198907 28
PRIORITY APPLN. INFO.:			JP 1984-136455	A 198407 03
			JP 1984-138950	A 198407 06
			JP 1984-217296	A 198410 18
			US 1985-748555	B1 198506 25

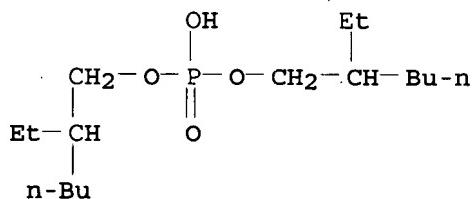
- AB Butadiene homopolymers or copolymers with other dienes with trans-1,4-microstructure 80-95%, polydispersity 1.2-4, m.p. (DSC) 40-130°, and boiling cyclohexane-insol. fraction ≤1% have good processability and phys. properties. Thus, heating 300 g hexane solution of butadiene with 0.08 mmol La bis(2-ethylhexyl) phosphate and 0.32 mmol Bu<sub>2</sub>Mg at 75° for 90 min gave a polymer with conversion 86%, trans and vinyl microstructure 89 and 6%, weight-average mol. weight 160,000, and polydispersity 1.2.
- IT 121-44-8, uses and miscellaneous 45324-95-6  
100477-70-1 102036-51-1 102840-64-2

RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of butadiene with controlled  
 microstructure)

RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

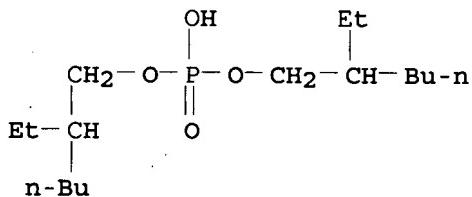


RN 45324-95-6 HCPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, lanthanum(3+) salt (9CI)  
 (CA INDEX NAME)



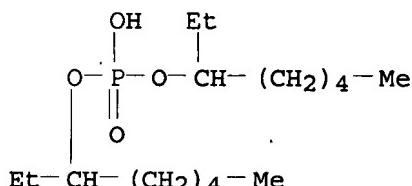
●1/3 La(III)

RN 100477-70-1 HCPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, cerium(3+) salt (9CI) (CA  
 INDEX NAME)



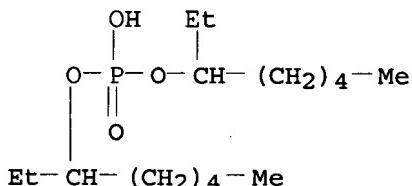
●1/3 Ce(III)

RN 102036-51-1 HCPLUS  
 CN 3-Octanol, hydrogen phosphate, lanthanum(3+) salt (9CI) (CA INDEX  
 NAME)



## ● 1/3 La(III)

RN 102840-64-2 HCAPLUS  
 CN 3-Octanol, hydrogen phosphate, cerium(3+) salt (9CI) (CA INDEX  
 NAME)



## ● 1/3 Ce(III)

IC ICM C08F036-06  
 ICS C08F004-50; C08F004-12; C08F004-48; C08F004-52; A41G003-00  
 CC 35-3 (Chemistry of Synthetic High Polymers)  
 IT 60-29-7, uses and miscellaneous 97-93-8, uses and miscellaneous  
 109-99-9, uses and miscellaneous 110-18-9 121-44-8, uses  
 and miscellaneous 1191-47-5 2388-10-5 4439-90-1 7439-91-0D,  
 naphthenates 17589-14-9 22065-26-5 25440-26-0  
**45324-95-6** 60756-59-4 60903-69-7 79968-72-2  
 82333-24-2 87856-24-4 92898-62-9 92898-66-3 94808-57-8  
**100477-70-1** 101949-81-9 101949-82-0 101949-83-1  
 101949-84-2 101962-31-6 102036-45-3 102036-46-4 102036-47-5  
 102036-48-6 102036-49-7 102036-50-0 **102036-51-1**  
 102036-53-3 102840-62-0 **102840-64-2**  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for polymerization of butadiene with controlled  
 microstructure)

L40 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1986:177792 HCAPLUS  
 DOCUMENT NUMBER: 104:177792  
 TITLE: Prevention of spotting in thermal imaging  
 compositions  
 INVENTOR(S): Miller, Alan G.  
 PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA  
 SOURCE: Eur. Pat. Appl., 29 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 159874	A2	19851030	EP 1985-302573	198504 12
EP 159874	A3	19860604		<--
EP 159874	B1	19910724		
R: CH, DE, FR, GB, IT, LI, NL CA 1236299	A1	19880510	CA 1985-475897	198503 07
AU 8539800	A	19851024	AU 1985-39800	198503 13
AU 580034	B2	19881222		<--
BR 8501734	A	19851210	BR 1985-1734	198504 12
JP 60234885	A	19851121	JP 1985-80044	198504 15
JP 06071823	B	19940914		<--
US 4917730	A	19900417	US 1985-788162	198510 16
PRIORITY APPLN. INFO.:			US 1984-600474	A 198404 16

OTHER SOURCE(S): MARPAT 104:177792

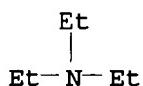
AB Thermal imaging compns. consist of (a)  $\geq 1$  leuco dye, (b) a nitrate, and (c)  $\geq 1$  base having a conjugate  $pK_a \geq 0$ . The base serves as an antispotting agent for the transparency film during the manufacturing process. The leuco dye is selected from the group consisting of styryl, phenoxazine, phenothiazine, and phenazine derivs. The base is selected from amines, amides, amine oxides, ureas, carboxylic acid salts, alc. salts, thiol salts, P-containing acid salts, phosphines, inorg. salts, and salts of complexes of carboxylic acids having  $pK_a = 0-25$ . Thus, by addition of 0.1 mmol of N-N bis(2-hydroxyethyl)aniline, the spotting was totally removed from a thermal imaging film.

IT 121-44-8, uses and miscellaneous 10432-15-2  
32509-12-9

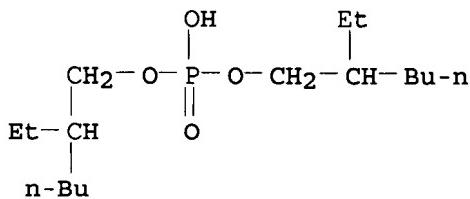
RL: USES (Uses)  
(as antispotting agent in thermal imaging composition)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)

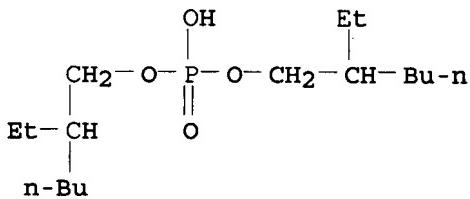


RN 10432-15-2 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, nickel(2+) salt (2:1) (CA INDEX NAME)



● 1/2 Ni(II)

RN 32509-12-9 HCAPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester, lithium salt (8CI, 9CI) (CA INDEX NAME)



● Li

IC ICM B41M005-26  
 CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 57-13-6, uses and miscellaneous 60-35-5, uses and miscellaneous 62-53-3, uses and miscellaneous 91-63-4 91-66-7 100-61-8, uses and miscellaneous 102-06-7 109-08-0 109-89-7, uses and miscellaneous 110-86-1, uses and miscellaneous 121-44-8, uses and miscellaneous 124-41-4 127-19-5 253-82-7 288-47-1 289-80-5 552-38-5 555-24-8 632-22-4 694-59-7 829-85-6 1310-58-3, uses and miscellaneous 1313-82-2, uses and miscellaneous 1619-34-7 2180-18-9 3264-82-2 10432-15-2 16761-13-0 22208-42-0 30947-30-9 32509-12-9 52829-07-9 101678-04-0 101819-98-1  
 RL: USES (Uses)  
 (as antispotting agent in thermal imaging composition)

L40 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1985:490203 HCAPLUS

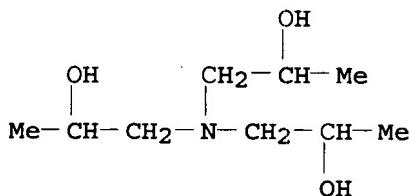
DOCUMENT NUMBER: 103:90203  
 TITLE: Tool grinding oil  
 PATENT ASSIGNEE(S): Yushiro Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60069198	A	19850419	JP 1983-165139	198309 09
JP 02014399	B	19900406		<--
PRIORITY APPLN. INFO.:			JP 1983-165139	198309 09

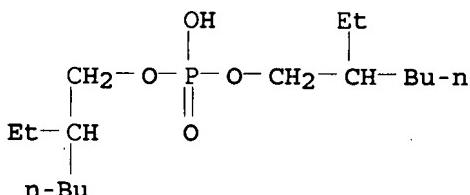
AB The title oil contains amines and  $\geq 1$  P compds. selected from RO(R<sub>1</sub>O)POH [I; R = H, R<sub>2</sub>, R<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>m</sub>; R<sub>1</sub> = R<sub>2</sub>, R<sub>2</sub>(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub> (R<sub>2</sub> = C<sub>4</sub>-24 alkyl, C<sub>4</sub>-24 alkenyl, aryl, C<sub>7</sub>-24 aralkyl, C<sub>7</sub>-24 alkylaryl; m, n = integer 1-20)]. The oil can be used to grind tools without burning or corroding the materials. Thus, a mixture of mineral oil (mixture of SAE number 10 and SAE number 20), I (R = H; R<sub>1</sub> = octadecyl) [24219-16-7], triisopropanolamine [122-20-3], and oleyl alc. [143-28-2] was used in grinding SKH-9 Fe alloy without metal burning or corrosion.

IT 122-20-3 298-07-7  
 RL: USES (Uses)  
 (cutting oils containing)

RN 122-20-3 HCPLUS  
 CN 2-Propanol, 1,1',1''-nitrilotris- (CA INDEX NAME)



RN 298-07-7 HCPLUS  
 CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC ICM C10M141-10  
 ICI C10M141-10, C10M137-04, C10M133-04; C10N030-06, C10N030-12,  
 C10N040-22  
 CC 51-8 (Fossil Fuels, Derivatives, and Related Products)  
 IT 78-96-6 101-83-7 110-97-4 122-20-3 143-28-2  
 298-07-7 701-64-4 838-85-7 1116-76-3 1623-07-0  
 1623-08-1 1838-19-3 2310-89-6 2958-09-0 4712-55-4  
 9021-89-0 9071-85-6 10542-07-1 14450-07-8 17176-77-1  
 21302-09-0 24219-16-7 25088-57-7 25852-45-3 26569-08-4  
 26982-05-8 28258-93-7 28603-06-7 30526-26-2 36119-17-2  
 39359-12-1 49862-22-8 50571-12-5 94060-69-2 97701-25-2  
 97701-26-3 97701-27-4 97701-28-5 97701-29-6 97701-30-9  
 97701-31-0 97701-32-1 97701-33-2 97701-34-3 97701-40-1  
 97794-96-2  
 RL: USES (Uses)  
 (cutting oils containing)

L40 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1981:426711 HCAPLUS

DOCUMENT NUMBER:

95:26711

TITLE:

Titanium dioxide pigments with good dispersibility

INVENTOR(S):

Koehler, Klaus; Woditsch, Peter; Rieck, Hilmar;  
Rodi, Fritz

PATENT ASSIGNEE(S):

Bayer A.-G. , Fed. Rep. Ger.

SOURCE:

Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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DE 2946549	A1	19810527	DE 1979-2946549	197911 17
EP 29137	A1	19810527	EP 1980-106568	198010 25
EP 29137 R: DE, FR, GB, IT NO 8003287	B1 A	19840222 19810518	<-- NO 1980-3287	<-- 198011 03
US 4344799	A	19820817	US 1980-203010	198011 03
FI 8003550	A	19810518	FI 1980-3550	198011 13
BR 8007457	A	19810526	BR 1980-7457	198011 14

PRIORITY APPLN. INFO.:

&lt;-- DE 1979-2946549

A

197911  
17

AB TiO<sub>2</sub> which has been treated with small amts. of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> is sprayed with a hydrophobic material such as a siloxane or (BuCHEtCH<sub>2</sub>O)<sub>2</sub>P(O)OH [298-07-7] and a hydrophilic compound such as N(CH<sub>2</sub>CH<sub>2</sub>OH)<sub>3</sub> (I) [102-71-6] to prepare pigments with good dispersibility in lacquers, plastics, and paper. Thus, a TiO<sub>2</sub> pigment treated with 0.8% SiO<sub>2</sub> and 2.5% Al<sub>2</sub>O<sub>3</sub> is sprayed with 0.25% OH-terminated siloxane (mol. weight 490) and 0.75% I and milled to prepare a pigment which dispersed rapidly in a xylene solution of an alkyd resin.

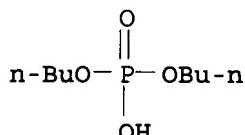
IT 107-66-4 122-20-3 298-07-7

RL: USES (Uses)

(titanium dioxide pigments containing, for improved dispersibility)

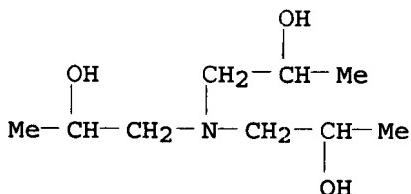
RN 107-66-4 HCAPLUS

CN Phosphoric acid, dibutyl ester (CA INDEX NAME)



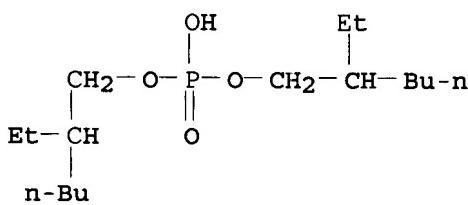
RN 122-20-3 HCAPLUS

CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)



RN 298-07-7 HCAPLUS

CN Phosphoric acid, bis(2-ethylhexyl) ester (CA INDEX NAME)



IC C09C001-36; C09D017-00; C09D005-00

CC 42-5 (Coatings, Inks, and Related Products)

IT 102-71-6, uses and miscellaneous 107-66-4 122-20-3  
298-07-7

RL: USES (Uses)

(titanium dioxide pigments containing, for improved dispersibility)

L40 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1981:140620 HCAPLUS  
 DOCUMENT NUMBER: 94:140620  
 TITLE: Polyesters  
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55115425	A	19800905	JP 1979-20794	197902 26
JP 63015296	B	19880404	JP 1979-20794	A 197902 26

PRIORITY APPLN. INFO.: <--  
 AB A polyester based on dicarboxylic acids [mainly terephthalic acid (I)] and glycols [mainly ethylene glycol (II)] is prepared by adding I and II to bis( $\beta$ -hydroxyethyl) terephthalate (III) and/or its oligomer, esterifying it, and adding (a)  $\geq 1$  II-soluble Mg or Mn compound, (b)  $\geq 1$  tertiary amine or quaternary ammonium hydroxide, and (c)  $\geq 1$  P compound chosen from phosphorous and/or phosphoric acid and/or their esters at  $2 \leq A \leq 40$ ,  $0.5 \leq B \leq 15$ , and  $0.8 \leq A/C \leq 5.0$ , where A, B, and C are the number of g-atoms of Mg or Mn in a, of N in b, and of P in c, resp., per 10 g polyester. Thus, III 90, I 86.5, and II 37.1 parts were esterified. To 105 parts of the product (100 parts polyester [25038-59-9]), Mg(OAc)<sub>2</sub>·4H<sub>2</sub>O 0.085 (A = 3.96), methyl acid phosphate (1:1 mixture of mono- and dimethyl phosphate [813-78-5]) 0.030, Sb<sub>2</sub>O<sub>3</sub> 0.030, Et<sub>4</sub>NOH [77-98-5] (B = 1.02, A/c = 1.56) 0.015 part were added and the mixture was heated at 255-85° for 1 h, during which time the pressure was lowered from 760 to 1 mm. The reaction was completed at 285°/0.5-1 mm after 2 h. The polyester had intrinsic viscosity 0.641 (o-chlorophenol 25°), softening point 259.9°, diethylene glycol content 1.07%, 30.5 CO<sub>2</sub>H ends/106 g, 5.4% haze, L 45.3 and b 3.5 for color difference, and heat resistance (measured by difference in intrinsic viscosities after 8 and 68 min at 300° under N) 0.107. The polyester was biaxially drawn 3.3 and 3.8 times its original length to obtain a 50  $\mu$ -thick film. It cast well using a casting speed of 45 m/min under 10 kV, and had film haze 0.3%.

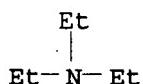
IT 121-44-8, preparation 812-00-0 813-78-5

RL: USES (Uses)

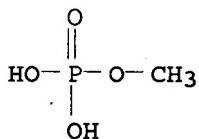
(poly(ethylene terephthalate) manufacture by polycondensation in present of)

RN 121-44-8 HCAPLUS

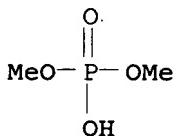
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



RN 812-00-0 HCAPLUS  
 CN Phosphoric acid, monomethyl ester (CA INDEX NAME)



RN 813-78-5 HCAPLUS  
 CN Phosphoric acid, dimethyl ester (CA INDEX NAME)

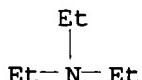


IC C08G063-22; G03C001-76; G11B005-62; H01B003-42  
 CC 36-3 (Plastics Manufacture and Processing)  
 IT 77-98-5 121-44-8, preparation 142-72-3 812-00-0  
 813-78-5 1309-64-4, uses and miscellaneous 2180-18-9  
 RL: USES (Uses)  
 (poly(ethylene terephthalate) manufacture by polycondensation in  
 present of)

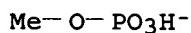
L40 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1979:157615 HCAPLUS  
 DOCUMENT NUMBER: 90:157615  
 TITLE: Intramolecular hydrolysis of glycinamide and  
 glycine dipeptides coordinated to cobalt(III).  
 2. Reactions of the cis-  
 $[\text{Co}(\text{en})_2(\text{OH}_2/\text{OH})(\text{glyNHR})]^{3+/2+}$  ions ( $\text{R} = \text{H}$ ,  
 $\text{CH}_2\text{CO}_2\text{C}_3\text{H}_7$ ,  $\text{CH}_2\text{CO}_2^-$ ) and the effect of buffer  
 species  
 AUTHOR(S): Boreham, C. J.; Buckingham, D. A.; Keene, F. R.  
 CORPORATE SOURCE: Res. Sch. Chem., Aust. Natl. Univ., Canberra,  
 Australia  
 SOURCE: Journal of the American Chemical Society (1979), 101(6), 1409-21  
 CODEN: JACSAT; ISSN: 0002-7863  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The intramol. addition of Co(III)-bound  $\text{H}_2\text{O}$  and  $\text{OH}^-$  to glycinamide,  
 glycylglycine iso-Pr ester, and glycylglycine also coordinated to  
 Co(III) in the cis- $[\text{Co}(\text{en})_2(\text{OH}_2/\text{OH})(\text{glyNHR})]^{3+/2+}$  ions ( $\text{R} = \text{H}$ ,  
 $\text{CH}_2\text{CO}_2\text{C}_3\text{H}_7$ ,  $\text{CH}_2\text{CO}_2^-$ ) was investigated both in the absence and  
 presence of buffers. For the dipeptide complex ( $\text{R} = \text{CH}_2\text{CO}_2\text{C}_3\text{H}_7$ )  
 both the aqua and hydroxo species form  $[\text{Co}(\text{en})_2(\text{glyO})]^{2+}$ , but loss  
 of  $\text{OH}^-$  also occurs resulting in the chelated amide

[Co(en)2(glyNHR)]3+. A combination of rate and product anal. data suggests that the initial cyclization is rate determining under all conditions. Buffer species act as a general bases in this rate-determining process, but they also enhance the formation of the hydrolysis product. Coordination H<sub>2</sub>O is more reactive than coordinated OH- owing largely to a more pos. ΔS\*.

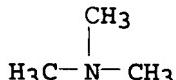
IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycine peptide in cobalt complex)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 48000-95-9  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycylamides in cobalt complexes)  
 RN 48000-95-9 HCPLUS  
 CN Phosphoric acid, monomethyl ester, ion(1-) (9CI) (CA INDEX NAME)



IT 75-50-3, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycylamine in cobalt complex)  
 RN 75-50-3 HCPLUS  
 CN Methanamine, N,N-dimethyl- (CA INDEX NAME)

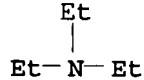


CC 67-2 (Catalysis and Reaction Kinetics)  
 IT 56-14-4, uses and miscellaneous 121-44-8, uses and  
 miscellaneous 142-44-9, uses and miscellaneous 23297-34-9, uses  
 and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycine peptide in cobalt  
 complex)  
 IT 71-50-1, uses and miscellaneous 3229-70-7, uses and miscellaneous  
 14265-44-2, uses and miscellaneous 48000-95-9 69995-99-9  
 69996-01-6  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycylamides in cobalt complexes)  
 IT 75-50-3, uses and miscellaneous 126-44-3, uses and  
 miscellaneous 3812-32-6, uses and miscellaneous 14124-67-5  
 14280-30-9, uses and miscellaneous 14609-74-6, uses and  
 miscellaneous 15390-83-7 15584-04-0 16554-54-4 24573-38-4  
 69996-00-5, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysis by, of hydrolysis of glycylamine in cobalt complex)

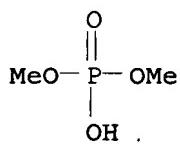
L40 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1978:511200 HCAPLUS  
 DOCUMENT NUMBER: 89:111200  
 TITLE: Unsaturated polyester resin  
 INVENTOR(S): Makimura, Osamu; Miyake, Hideo  
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
 SOURCE: Jpn. Tokkyo Koho, 10 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 53009275	B	19780404	JP 1972-122277	197212 06
<--				
PRIORITY APPLN. INFO.:			JP 1972-122277	A 197212 06
<--				

- AB A high-mol.-weight saturated polyester is treated with a glycol, possibly in the presence of an alkylamine or a cycloalkylamine, to give a reaction product, which is treated with an unsatd. dicarboxylic acid or its ester in the presence of a P acid or its derivative. The resulting unsatd. polyester is mixed with styrene (I) to give an unsatd. polyester resin. Thus, a mixture of 1200 parts poly(ethylene terephthalate) scrap containing 30% glass fibers and 234 parts neopentyl glycol was heated 2 h at 220° under N<sub>2</sub>, cooled to 170°, mixed with dimethyl phosphate [813-78-5] 0.35, fumaric acid 435, and propylene glycol 234 parts, and heated 3.5 h at 210° to give an unsatd. polyester [57399-09-4] (with acid value 19), which was mixed with 45% I, giving an unsatd. polyester resin with APHA color <100.
- IT 121-44-8, uses and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for depolymn. of saturated polyester scrap, in manufacture of unsatd. polyesters)
- RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- IT 813-78-5  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for unsatd. polyester manufacture from depolymd. saturated polyester scrap)
- RN 813-78-5 HCAPLUS  
 CN Phosphoric acid, dimethyl ester (CA INDEX NAME)



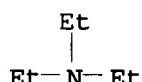
IC C08F299-04  
 CC 36-3 (Plastics Manufacture and Processing)  
 IT 109-89-7, uses and miscellaneous 111-92-2 121-44-8, uses  
 and miscellaneous  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for depolymn. of saturated polyester scrap, in manufacture of  
 unsatd. polyesters)  
 IT 115-86-6 813-78-5 7664-38-2, uses and miscellaneous  
 13598-36-2  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for unsatd. polyester manufacture from depolymd. saturated  
 polyester scrap)

L40 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1976:45227 HCAPLUS  
 DOCUMENT NUMBER: 84:45227  
 TITLE: Chloral copolymers  
 INVENTOR(S): Vogl, Otto F.  
 PATENT ASSIGNEE(S): du Pont de Nemours, E. I., and Co., USA  
 SOURCE: U.S., 23 pp. Division of U.S. 3,775,371.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3917546	A	19751104	US 1973-352387	197304 18
US 3668184	A	19720606	US 1969-886739	196912 19
US 3775371	A	19731127	US 1972-227684	197202 18
US 3932318	A	19760113	US 1974-530438	197412 06
PRIORITY APPLN. INFO.:			US 1969-886739	A3 196912 19
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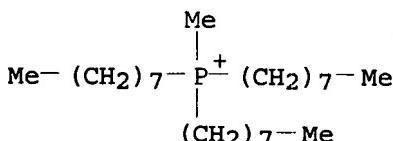
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	US 1966-558631	A3
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	US 1966-580217	A2
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		197304
		18

- AB Chloral (I) [75-87-6] was copolymerd. with  $\geq 1$  isocyanate, isothiocyanate, diisocyanate, diisothiocyanate, or ketene compound to form nonflammable copolymers. The monomer mixture was prepared at a temperature above the threshold polymerization temperature of the mixture, cooled below the threshold polymerization temperature, and kept quiescent during the polymerization. Thus, a mixture of 30 g I and 2.7 g Ph isocyanate was heated to 65°, and the quiescent mixture was polymerized 1 hr at -50° in the presence of 0.4 ml 1M Li tert-butoxide in cyclohexane to yield the insol. chloral-phenyl isocyanate copolymer [25838-94-2].
- IT 121-44-8, uses and miscellaneous 26482-14-4  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for chloral polymerization)
- RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



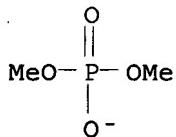
- RN 26482-14-4 HCPLUS  
 CN Phosphonium, methyltriocetyl-, dimethyl phosphate (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 45292-09-9  
 CMF C25 H54 P

CM 2

CRN 7351-83-9  
 CMF C2 H6 O4 P



INCL 260002500F

CC 36-3 (Plastics Manufacture and Processing)

IT 56-34-8 100-74-3 102-87-4 110-86-1, uses and miscellaneous  
**121-44-8**, uses and miscellaneous 603-32-7 603-36-1  
 1038-95-5 1605-53-4 1663-45-2 3607-17-8 3746-01-8  
 5587-39-3 6163-58-2 13410-61-2 13504-79-5 17663-89-7  
 18631-95-3 21259-67-6 23250-03-5 **26482-14-4**  
 32394-38-0 32394-45-9 32394-46-0 32395-05-4 35612-21-6  
 57959-57-6 57959-58-7 57959-59-8 57959-60-1 57959-62-3  
 57959-63-4 57959-64-5 57959-65-6 57959-66-7 57959-67-8  
 57959-68-9 57959-69-0 57959-71-4 57959-72-5 57959-73-6  
 57959-74-7 57959-75-8 57959-76-9 57959-77-0 57959-78-1  
 57969-11-6

RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, for chloral polymerization)

L40 ANSWER 30 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1971:8381 HCPLUS

DOCUMENT NUMBER: 74:8381

TITLE: Liquid developing bath for electrophotography

PATENT ASSIGNEE(S): Ricoh Co., Ltd.

SOURCE: Fr. Demande, 19 pp.

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2009688		19700206	FR 1969-17916	196905 30
DE 1926918			DE	<--
GB 1276363			GB	
US 3681243		19720801	US	196905 22
PRIORITY APPLN. INFO.:			JP	<--
			JP	196805 30
			JP	<--
			JP	196903 25
			JP	<--

AB Better image separation is achieved and spotty texture due to irregularities in the surface, and consequently in its charge, is avoided by including in the developer (0.1-10% based on the pigment) one of the following: Decalin, azobenzene, camphor, citral, monomeric styrene, a divalent metal bis(di-C3-18 alkyl dithiophosphate), di-Na C2-12 alkyl phosphate, mono-Na di-C2-12 alkyl phosphate, tri-C3-18 alkyl phosphate, alkali metal C12-16 alkyl sulfate, C4-16 alc., C11-15 carboxylic acid, phthalic acid, C1-4 alkyl phthalate, NH<sub>3</sub>, a C2-17 alkylamine, or an araldehyde. Thus, a mixture of the following is ball-milled for 16 hr: carbon black 5, Nikanol HP-100 (charge control agent) 30, Plexol 966 (dispersing resin) 10, PhMe 45, and a 5% PhMe solution of the Ba salt of one mole each of diisopropyl and of diisobutyl dithiophosphate 10 g. Of this dispersion 5 g is distributed in 1 l. of Isopar-H solvent.

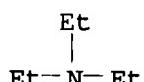
IT 121-44-8, uses and miscellaneous 2627-35-2  
7057-92-3 24613-62-5

RL: USES (Uses)

(electrophotographic developing solns. containing)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



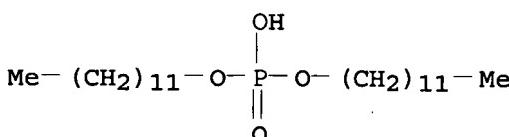
RN 2627-35-2 HCPLUS

CN Phosphoric acid, monododecyl ester (CA INDEX NAME)

H<sub>2</sub>O<sub>3</sub>PO-(CH<sub>2</sub>)<sub>11</sub>-Me

RN 7057-92-3 HCPLUS

CN Phosphoric acid, didodecyl ester (CA INDEX NAME)



RN 24613-62-5 HCPLUS

CN Phosphoric acid, monododecyl ester, monosodium salt (8CI, 9CI) (CA INDEX NAME)

H<sub>2</sub>O<sub>3</sub>PO-(CH<sub>2</sub>)<sub>11</sub>-Me

● Na

IC G03G

CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 57-10-3, uses and miscellaneous 67-63-0, uses and miscellaneous  
 76-22-2 78-40-0 88-99-3, uses and miscellaneous 91-17-8  
 100-42-5, uses and miscellaneous 103-33-3 104-55-2  
**121-44-8**, uses and miscellaneous 123-72-8 124-30-1  
 143-07-7, uses and miscellaneous 143-08-8 151-21-3, uses and  
 miscellaneous 544-63-8, uses and miscellaneous 1120-01-0  
 2627-35-2 2929-95-5 4376-18-5 4706-78-9 5392-40-5  
 7057-92-3 24613-62-5 30342-11-1 30342-12-2  
 36653-82-4

RL: **USES (Uses)**  
 (electrophotographic developing solns. containing)

L40 ANSWER 31 OF 31 HCPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1970:67455 HCPLUS  
 DOCUMENT NUMBER: 72:67455  
 TITLE: Compounds containing vanadium, oxygen and phosphorus, and catalysts using same for polymerization of unsaturated compounds  
 INVENTOR(S): Bayer, John W.; Grinonneau, William C.  
 PATENT ASSIGNEE(S): Owens-Illinois, Inc.  
 SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3488334	A	19700106	US 1965-500329	196510 21
<--				
PRIORITY APPLN. INFO.:			US 1965-500329	A
				196510 21
<--				

AB A catalyst mixture containing a compound obtained by reaction of a V oxide with an organic P-O compound in the presence of a polar additive, and an organoaluminum compound, is used in the polymerization of ethylenically unsatd. monomers. Thus, a mixture of V2O5 7.3, PhPO3H2 25.3, and MeOH 2.56 g in 200 ml C6H6 was refluxed at 80° for 3 hr to give a mixture, which was dried at 50° for 12 hr. The catalyst mixture (0.5 g) was added with 0.5 ml Et2AlCl to 300 ml C7H16 and the mixture was flushed with N before C2H4 was introduced at 20 psig. The temperature was raised to 57° and the polymerization continued for 2 hr to give 78 g polyethylene. When the V catalyst component was prepared in the absence of the polar compound, or the P compound, or with H2O as a reaction medium, no polymer was formed, and low polymer yields were obtained by using di-Bu phosphite and dioctyl H phosphate. Other polar additives used were PrOH, tert-BuOH, dioxane, tetrahydrofuran, PhSO3H, HOAc, Et2O, H2O, and HCO2H. Polybutadiene and an C2H4-propylene copolymer were also prepared

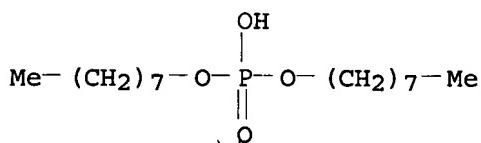
IT 3115-39-7

RL: CAT (Catalyst use); **USES (Uses)**

(catalysts, containing vanadium oxide, for polymerization of olefins)

RN 3115-39-7 HCPLUS

CN Phosphoric acid, dioctyl ester (CA INDEX NAME)



IT 121-44-8, uses and miscellaneous  
 RL: USES (Uses)  
 (olefin polymers prepared in presence of, catalytic activity in relation to)  
 RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC C08F001-42A; C08F001-56B  
 INCL 260088200  
 CC 35 (Synthetic High Polymers)  
 IT 1571-33-1 1809-19-4 3115-39-7  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalysts, containing vanadium oxide, for polymerization of olefins)  
 IT 60-29-7, uses and miscellaneous 64-18-6, uses and miscellaneous  
 64-19-7, uses and miscellaneous 67-56-1, uses and miscellaneous  
 71-23-8, uses and miscellaneous 75-65-0 98-11-3, uses and  
 miscellaneous 109-89-7, uses and miscellaneous 109-99-9, uses  
 and miscellaneous 121-44-8, uses and miscellaneous  
 123-91-1, uses and miscellaneous 7732-18-5  
 RL: USES (Uses)  
 (olefin polymers prepared in presence of, catalytic activity in relation to)

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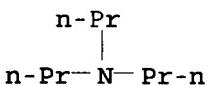
FILE 'HCAPLUS' ENTERED AT 17:17:09 ON 23 MAY 2007  
 L41 QUE ABB=ON PLU=ON (PHOSPHORIC OR ORTHOPHOPHORIC) (A)ACID  
     OR PHOSPHATE OR ORTHOPHOSPHATE  
 L42 882 SEA ABB=ON PLU=ON L41 AND L35  
 L43 14056 SEA ABB=ON PLU=ON L41(L) (MODIFIER? OR ADDITIVE?)  
 L44 49 SEA ABB=ON PLU=ON L42 AND L43  
 L45 9 SEA ABB=ON PLU=ON L44 AND L38  
 L46 9 SEA ABB=ON PLU=ON L45 NOT (L39 OR L40)

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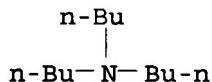
L46 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:330545 HCAPLUS  
 DOCUMENT NUMBER: 146:361807  
 TITLE: Emulsion fuel additive from biomass  
 INVENTOR(S): Gao, Tiexin  
 PATENT ASSIGNEE(S): Peop. Rep. China  
 SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu,  
       6pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1931966	A	20070321	CN 2006-10137769	200610 31
PRIORITY APPLN. INFO.:			CN 2006-10137769	200610 31

AB The title fuel **additive** comprises renewable biomass raw materials modified by alc. or amine 79.9-81.3, diluent 18.1-19.4 and a **stabilizer** 0.6-0.7 weight%. The renewable biomass raw materials are fatty acid and acid oils extracted from residues of the processed vegetable grease or animal fatty acid and oils from processed animal grease. The diluent is MeOH, EtOH, PrOH, BuOH or acetone. The **stabilizer** is polyoxyethylene Ph ether **phosphate**.  
 IT 102-69-2, Tri-n-propylamine 102-82-9,  
     Tri-n-butylamine  
     RL: NUU (Other use, unclassified); USES (Uses)  
       (emulsion fuel additive from biomass)  
 RN 102-69-2 HCAPLUS  
 CN 1-Propanamine, N,N-dipropyl- (CA INDEX NAME)



RN 102-82-9 HCAPLUS  
 CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)

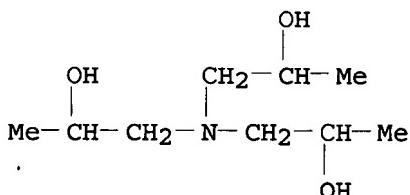


CC 51-9 (Fossil Fuels, Derivatives, and Related Products)  
 IT 67-63-0, Isopropanol, uses 78-83-1, Isobutanol, uses  
 102-69-2, Tri-n-propylamine 102-71-6, Triethanolamine,  
 uses 102-82-9, Tri-n-butylamine 107-10-8,  
 Mono-n-propylamine, uses 109-73-9, Mono-n-butylamine, uses  
 111-42-2, Diethanolamine, uses 111-92-2, Di-n-butylamine  
 141-43-5, Monoethanolamine, uses 142-84-7, Di-n-propylamine  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (emulsion fuel additive from biomass)

L46 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:1334831 HCAPLUS  
 DOCUMENT NUMBER: 144:40877  
 TITLE: Topical preparations containing prednisolone  
 acetate valerate  
 INVENTOR(S): Okuno, Yoshihide  
 PATENT ASSIGNEE(S): Ikeda Mohando Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005350379	A	20051222	JP 2004-170985	200406 09
PRIORITY APPLN. INFO.:			JP 2004-170985	200406 09

AB This invention relates to **stable** topical compns. of  
 prednisolone acetate valerate. The compns. comprise (1)  
 prednisolone acetate valerate, (2) pH **modifiers** and/or  
 buffers, and (3) dl-menthol, l-menthol, dl-camphor, and/or  
 d-camphor. For example, a gel cream contained prednisolone acetate  
 valerate 0.15, l-menthol 1, isopropylmethylphenol 0.1, tocopherol  
 acetate 0.5, polyoxyethylene monostearate 0.5, iso-Pr myristate 2,  
 stearyl alc. 1, carboxyvinyl polymer 0.8, diisopropanolamine 0.1,  
 sodium edetate 0.01, sodium hydrogen **phosphate** 0.2,  
 1,3-butylene glycol 5, and distilled water balance to 100 %.  
 IT 122-20-3, Triisopropanolamine  
 RL: THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (pH-controlled **stable** topical prepns. containing  
 prednisolone acetate valerate)  
 RN 122-20-3 HCAPLUS  
 CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)

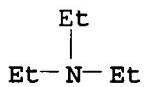


IC ICM A61K031-573  
 ICS A61K009-06; A61K009-08; A61K009-107; A61K009-12; A61K047-04;  
     A61K047-08; A61K047-10; A61K047-12; A61K047-18; A61P017-00;  
     A61P017-04; A61P029-00  
 CC 63-6 (Pharmaceuticals)  
 IT Drug delivery systems  
     (aerosols; pH-controlled **stable** topical preps. containing  
         prednisolone acetate valerate)  
 IT Drug delivery systems  
     (gels, topical; pH-controlled **stable** topical preps.  
         containing prednisolone acetate valerate)  
 IT Drug delivery systems  
     (lotions; pH-controlled **stable** topical preps. containing  
         prednisolone acetate valerate)  
 IT Drug delivery systems  
     (ointments, creams; pH-controlled **stable** topical  
         preps. containing prednisolone acetate valerate)  
 IT Drug delivery systems  
     (ointments; pH-controlled **stable** topical preps. containing  
         prednisolone acetate valerate)  
 IT Buffers  
     (pH-controlled **stable** topical preps. containing  
         prednisolone acetate valerate)  
 IT Drug delivery systems  
     (solns., topical; pH-controlled **stable** topical preps.  
         containing prednisolone acetate valerate)  
 IT Drug delivery systems  
     (sprays; pH-controlled **stable** topical preps. containing  
         prednisolone acetate valerate)  
 IT 50-21-5, Lactic acid, biological studies 64-19-7, Acetic acid,  
     biological studies 74-79-3, L-Arginine, biological studies  
     76-22-2, dl-Camphor 77-92-9, Citric acid, biological studies  
     87-69-4, Tartaric acid, biological studies 89-78-1, dl-Menthol  
     102-71-6, Triethanolamine, biological studies 110-15-6, Succinic  
     acid, biological studies 110-16-7, Maleic acid, biological studies  
     110-44-1, Sorbic acid 110-97-4, Diisopropanolamine 111-42-2,  
     Diethanolamine, biological studies 122-20-3,  
     Triisopropanolamine 141-43-5, Monoethanolamine, biological studies  
     464-49-3 526-95-4, D-Gluconic acid 1305-62-0, Calcium hydroxide,  
     biological studies 1310-58-3, Potassium hydroxide, biological  
     studies 1310-73-2, Sodium hydroxide, biological studies  
     1336-21-6, Ammonium hydroxide 2216-51-5 6915-15-7, Malic acid  
     7647-01-0, Hydrochloric acid, biological studies 7664-38-2,  
     **Phosphoric acid**, biological studies 7664-93-9,  
     Sulfuric acid, biological studies 72064-79-0  
 RL: THU (Therapeutic use); BIOL (Biological study); **USES**  
     (**Uses**)  
         (pH-controlled **stable** topical preps. containing  
             prednisolone acetate valerate)

ACCESSION NUMBER: 2002:827564 HCAPLUS  
 DOCUMENT NUMBER: 137:326671  
 TITLE: Jet inks with good ejection stability, storage stability, and water resistance, containers for them, and method and apparatus for jet printing using them  
 INVENTOR(S): Onishi, Yasuharu; Endo, Hiroyuki; Ueki, Hiroyuki  
 PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002317132	A	20021031	JP 2001-119955	200104 18
PRIORITY APPLN. INFO.:		JP 2001-119955 200104 18		

AB The inks comprise colorants, organic solvents, surfactants, and additives, which increase pH of pure H<sub>2</sub>O at concentration of  $\geq 1\%$ . Optical densities of printed images from the inks of this invention (ODB) and inks without the additives (ODA) after immersing in H<sub>2</sub>O satisfy the relationship of ODB/ODA  $\geq 1.05$ . Thus, an ink comprising Reactive Yellow 51, polyethylene glycol, glycerin, nonionic surfactants, H<sub>2</sub>O, and Na<sub>2</sub>CO<sub>3</sub> was manufactured  
 IT 121-44-8, Triethylamine, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (jet inks containing pH-increasing additives with good ejection stability, storage stability, and water resistance)  
 RN 121-44-8 HCAPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 IT Inks  
 (jet-printing, anticlogging, storage-stable; jet inks containing pH-increasing additives with good ejection stability, storage stability, and water resistance)  
 IT 62-54-4, Calcium acetate 62-76-0, Sodium oxalate 75-04-7, Ethylamine, uses 100-71-0, 2-Ethylpyridine 102-71-6, Triethanolamine, uses 108-89-4, 4-Methylpyridine 109-06-8, 2-Methylpyridine 109-89-7, Diethylamine, uses 110-86-1, Pyridine, uses 111-42-2, Diethanolamine, uses 121-44-8, Triethylamine, uses 126-96-5 127-08-2, Potassium acetate 127-09-3, Sodium acetate 127-95-7, Potassium hydrogen oxalate

141-43-5, Monoethanolamine, uses 142-72-3, Magnesium acetate  
 144-55-8, Sodium bicarbonate, uses 298-14-6 471-34-1, Calcium carbonate, uses 497-19-8, Sodium carbonate, uses 506-87-6, Ammonium carbonate 536-78-7, 3-Ethylpyridine 546-89-4, Lithium acetate 546-93-0, Magnesium carbonate 547-66-0, Magnesium oxalate 553-91-3, Lithium oxalate 554-13-2, Lithium carbonate 563-72-4 584-08-7, Potassium carbonate 631-61-8, Ammonium acetate 694-56-4 1066-33-7, Ammonium hydrogencarbonate 1113-38-8, Ammonium oxalate 1186-49-8, Sodium hydrogen oxalate 1305-62-0, Calcium hydroxide, uses 1310-58-3, Potassium hydroxide, uses 1310-65-2, Lithium hydroxide 1310-73-2, Sodium hydroxide, uses 1330-43-4, Sodium tetraborate 1332-77-0, Potassium tetraborate 1336-21-6, Ammonium hydroxide 1628-89-3, 2-Methoxypyridine 4251-29-0, Potassium hydrogen acetate 5006-97-3, Lithium hydrogencarbonate 5972-72-5, Ammonium hydrogen oxalate 7558-79-4, Disodium hydrogen phosphate 7558-80-7, Sodium dihydrogen phosphate 7601-54-9, Trisodium phosphate 7722-76-1, Ammonium dihydrogen phosphate 7757-86-0, Magnesium hydrogen phosphate 7757-87-1 7758-11-4, Dipotassium hydrogen phosphate 7758-23-8, Calcium dihydrogen phosphate 7758-87-4, Tricalcium phosphate 7775-19-1, Sodium metaborate 7778-53-2, Tripotassium phosphate 7778-77-0, Potassium dihydrogen phosphate 10043-22-8, Potassium oxalate 10361-65-6, Ammonium phosphate 10377-52-3, Trilithium phosphate 11128-29-3, Potassium pentaborate 12007-58-8, Ammonium boron oxide ((NH<sub>4</sub>)<sub>2</sub>B<sub>4</sub>O<sub>7</sub>) 12007-60-2, Lithium tetraborate 12007-89-5, Ammonium boron oxide ((NH<sub>4</sub>)B<sub>5</sub>O<sub>8</sub>) 12007-92-0, Sodium pentaborate 12008-41-2, Boron sodium oxide (B<sub>8</sub>Na<sub>2</sub>O<sub>13</sub>) 12229-52-6, Boron potassium oxide (B<sub>6</sub>K<sub>4</sub>O<sub>11</sub>) 12229-55-9, Boron sodium oxide (B<sub>6</sub>Na<sub>4</sub>O<sub>11</sub>) 12429-66-2, Boron magnesium oxide (B<sub>6</sub>MgO<sub>10</sub>) 13092-66-5, Magnesium dihydrogen phosphate 13453-69-5, Lithium metaborate 13453-80-0, Lithium dihydrogen phosphate 13703-82-7, Magnesium metaborate 13709-94-9, Potassium metaborate 15302-96-2, 1-Ethylpyridinium 25007-86-7 32446-62-1 34370-18-8, Lithium pentaborate 52458-41-0, Ammonium metaborate 58567-85-4, Lithium hydrogen oxalate 70984-28-0, Ammonium borate ((NH<sub>4</sub>)<sub>2</sub>B<sub>8</sub>O<sub>13</sub>) 77617-77-7 142261-32-3, Magnesium borate oxide (Mg<sub>3</sub>(BO<sub>2</sub>)<sub>4</sub>O) 473711-69-2, Magnesium borate oxide (Mg<sub>5</sub>(BO<sub>2</sub>)<sub>4</sub>O<sub>3</sub>)

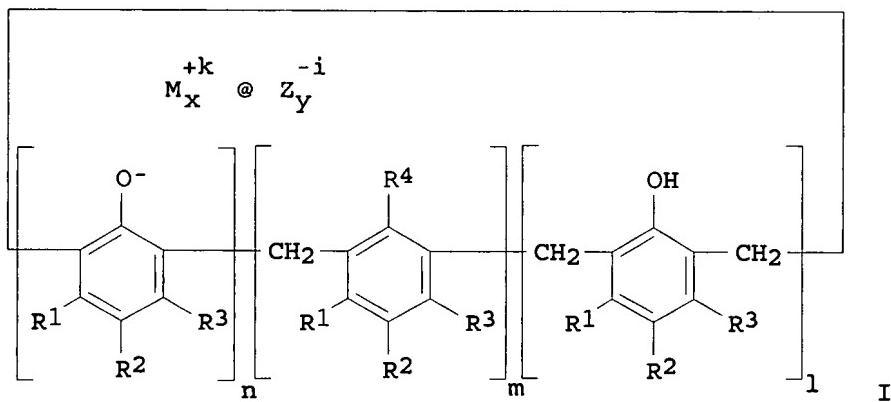
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(jet inks containing pH-increasing additives with good ejection stability, storage stability, and water resistance)

L46 ANSWER 4 OF 9 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2001:143692 HCPLUS  
 DOCUMENT NUMBER: 134:194136  
 TITLE: Calixarene inclusion compound additives, their manufacture, and resin compositions containing them  
 INVENTOR(S): Yang, Wu; Kanbara, Hajime; Osawa, Mika; Ueno, Yoko; Okoshi, Masayuki  
 PATENT ASSIGNEE(S): Kansai Shingijutsu Kenkyusho K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001055469	A	20010227	JP 1999-370178	199912 27
WO 2001048072	A1	20010705	WO 2000-JP8599	200012 05
EP 1253168	A1	20021030	EP 2000-979094	200012 05
EP 1253168	B1	20050323		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
US 2003057406	A1	20030327	US 2002-168970	200210 15
US 7052630	B2	20060530	JP 1999-164093	A 199906 10
PRIORITY APPLN. INFO.:			JP 1999-370178	A 199912 27
			WO 2000-JP8599	W 200012 05

OTHER SOURCE(S) : MARPAT 134:194136  
GI



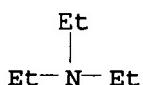
AB The additives comprising functional compds. dispersed in solid calixarenes I ( $R_1, R_2, R_3 = H$ , (un)substituted (un)saturated alkyl,

(un)substituted alkoxy, aryl, halo, nitro, etc.; R4 = (un)substituted (un)saturated alkyl, (un)substituted aryl, acyl; l, m, n, x, y = 0-10; l + m + n = 4-10; M+k = metal ion, NH4+, organic cation; Z-i = anion; i, k = 1-6; x + k = i + y + n) are manufactured. Thus, 4-tert-butylcalix[6]arene was mixed with KOH and tetrasodium copper(II) phthalocyaninetetrasulfonate in an aqueous medium; precipitated, and blended with polypropylene to give a composition showing good dispersibility, blue color, and crystallization temperature increase 13°.

IT 121-44-8DP, Triethylamine, inclusion compds. with 4-tert-butylcalix[8]arene  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (crosslinking agent for epoxy resins; manufacture of calixarene inclusion compds. for resin additives)

RN 121-44-8 HCPLUS

CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IC ICM C08K005-00  
 ICS C08L101-16  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT Antibacterial agents  
 Crosslinking agents  
 Crystal nucleating agents  
 Fire-resistant materials  
 Fireproofing agents  
 Light-resistant materials  
 Pigments, nonbiological  
 Tackifiers  
**UV stabilizers**  
 (manufacture of calixarene inclusion compds. for resin additives)

IT 121-44-8DP, Triethylamine, inclusion compds. with 4-tert-butylcalix[8]arene  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (crosslinking agent for epoxy resins; manufacture of calixarene inclusion compds. for resin additives)

IT 85209-91-2DP, Sodium 2,2'-methylenebis(4,6-di-tert-butylphenyl) phosphate, inclusion compds. with 4-tert-butylcalix[6]arene  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PREP (Preparation); USES (Uses)  
 (crystal nucleating agent; manufacture of calixarene inclusion compds. for resin additives)

L46 ANSWER 5 OF 9 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2000:570811 HCPLUS  
 DOCUMENT NUMBER: 133:305117  
 TITLE: Quaternized trimethylaminated polystyrene-coated zirconia as a strong anion exchange material for HPLC  
 AUTHOR(S): Zhao, Jianhong; Carr, Peter. W.  
 CORPORATE SOURCE: Department of Chemistry, University of Minnesota, Minneapolis, IN, 55414, USA  
 SOURCE: Analytical Chemistry (2000), 72(18), 4413-4419

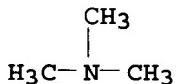
CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The synthesis and characterization of a new, base-stable, strong anion exchange phase by amination of polystyrene-coated zirconia (PS-ZrO<sub>2</sub>) are described. Even though the ion exchange capacity of the quaternized trimethylaminated PSZrO<sub>2</sub> (QTMA-PS-ZrO<sub>2</sub>) is only 0.07 mequiv/g, it is able to sep. various inorg. anions, benzoic acid derivs., and nucleotides in their deprotonated states. The effects of ionic strength, eluent pH, and counterion type are discussed. In the presence of both phosphate and fluoride ions in the eluent, band broadening caused by Lewis acid/base interactions between zirconia and analytes is greatly suppressed. The mixed retention modes (ion exchange, hydrophobic interaction, and Lewis acid/base interactions) on QTMA-PS-ZrO<sub>2</sub> offer a different selectivity toward various anionic analytes than do other zirconia- and nonzirconia-based ion exchangers.

IT 75-50-3DP, Trimethylamine, reaction product with polystyrene  
 RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (quaternized trimethylaminated polystyrene-coated zirconia as a strong anion exchange material for HPLC separation of)

RN 75-50-3 HCPLUS  
 CN Methanamine, N,N-dimethyl- (CA INDEX NAME)



CC 80-4 (Organic Analytical Chemistry)  
 Section cross-reference(s): 33, 37, 79

IT 14265-44-2, Phosphate, analysis 16984-48-8, Fluoride, analysis  
 RL: ARU (Analytical role, unclassified); ANST (Analytical study) (additive; quaternized trimethylaminated polystyrene-coated zirconia as a strong anion exchange material for HPLC separation)

IT 58-64-0, ADP, analysis 61-19-8, AMP, analysis 62-23-7, p-Nitrobenzoic acid 63-38-7, CDP 65-47-4, CTP 65-85-0, Benzoic acid, analysis 74-11-3, p-Chlorobenzoic acid 88-99-3, 1,2-Benzenedicarboxylic acid, analysis 99-96-7, p-Hydroxybenzoic acid, analysis 104-15-4, p-Toluenesulfonic acid, analysis 365-07-1, Thymidine 5'-phosphoric acid 365-08-2, TTP 491-97-4, TDP 619-65-8, p-Cyanobenzoic acid 619-86-3, p-Ethoxybenzoic acid 1142-39-8, p-Hexyloxybenzoic acid 1498-96-0, p-Butoxybenzoic acid 5438-19-7, p-Propoxybenzoic acid 14797-55-8, Nitrate, analysis 14797-65-0, Nitrite, analysis 16887-00-6, Chloride, analysis 20461-54-5, Iodide, analysis 24959-67-9, Bromide, analysis  
 RL: ANT (Analyte); PEP (Physical, engineering or chemical process); ANST (Analytical study); PROC (Process) (quaternized trimethylaminated polystyrene-coated zirconia as a strong anion exchange material for HPLC separation of)

IT 75-50-3DP, Trimethylamine, reaction product with polystyrene  
 RL: ARU (Analytical role, unclassified); NUU (Other use, unclassified); SPN (Synthetic preparation); ANST (Analytical study);

## PREP (Preparation); USES (Uses)

(quaternized trimethylaminated polystyrene-coated zirconia as a strong anion exchange material for HPLC separation of)

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:241932 HCAPLUS

DOCUMENT NUMBER: 130:297366

TITLE: Manufacture of organic phosphorus compounds useful for polymer additives

INVENTOR(S): Kitamura, Kozo; Kihara, Takeshi; Tanaka, Yoshinori; Yano, Yoshimi

PATENT ASSIGNEE(S): Daihachi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11100391	A	19990413	JP 1997-268694	199710 01
JP 3383198	B2	20030304		199711 10
US 5919968	A	19990706	US 1997-966651	199611 21
PRIORITY APPLN. INFO.:			JP 1996-310966	A
			JP 1997-204687	A 199707 30
			US 1997-904629	B2 199708 01
			JP 1997-268694	A 199710 01

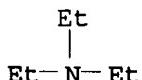
OTHER SOURCE(S): MARPAT 130:297366

AB In the oxidation of a trivalent organic P compound with an aqueous solution of H<sub>2</sub>O<sub>2</sub>

to give a corresponding pentavalent P compound, the hydrolysis side reaction can be prevented by carrying out the oxidation in the presence of an (in)organic base at 0-50°. Thus, blowing ethylene oxide 106.0 into a mixture of PCl<sub>3</sub> 137.5, dichloroethane 50.0 and Et<sub>3</sub>N 0.28 at 10°, reacting for 4 h at 10-30°, adding acetone 39.3 to the mixture over 30 min at 30-50°, slowly heating to then at 80-90° for 4 h, after adding a 30% aqueous NaOH solution 7 at 10-20° over 20 min, dropping a 35% aqueous H<sub>2</sub>O<sub>2</sub> solution 43.8 g at 10-30° over 4 h while controlling the reaction mixture pH at

8.5-10.5 with the NaOH solution, mixing for addnl. 2 h and working up gave a polyphosphate oil product with P content 13.2%, active Cl content 27.8 and trivalent P content. 0%.

- IT 121-44-8, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalyst; in manufacture of organic pentavalent phosphorus compds.  
 useful for polymer additives)
- RN 121-44-8 HCAPLUS
- CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- IC ICM C07F009-09  
 ICS C08K005-5317
- CC 37-2 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 29
- IT Fireproofing agents  
 Heat stabilizers  
 Plasticizers  
 (in manufacture of organic pentavalent phosphorus compds. useful for  
 polymer additives)
- IT 121-44-8, uses  
 RL: CAT (Catalyst use); USES (Uses)  
 (catalyst; in manufacture of organic pentavalent phosphorus compds.  
 useful for polymer additives)
- IT 126-73-8P, Tributyl phosphate, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (reactant; in manufacture of organic pentavalent phosphorus compds.  
 useful for polymer additives)

L46 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:624844 HCAPLUS  
 DOCUMENT NUMBER: 125:249570  
 TITLE: Acidic group-substituted styrene polymer  
 compositions containing basic compounds with  
 thermal stability  
 INVENTOR(S): Yamagishi, Hideyuki; Yamauchi, Hironobu  
 PATENT ASSIGNEE(S): Asahi Chemical Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

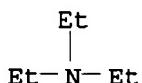
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08199024	A	19960806	JP 1995-10717	199501 26

PRIORITY APPLN. INFO.:	JP 1995-10717	199501 26
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AB Title compns. showing improved fluidity, useful for large-scale thin

film moldings in home appliance parts, etc., comprise acidic group-substituted styrene polymers and compds. substituted with  $\geq 1$  basic groups at 0.01-10 mol% vs. the acidic groups optionally associated with thermoplastic resins compatible to the above polymers. Thus, a carboxyl-substituted styrene polymer 50, 4,4'-dipyridine 3.8, and rubber-modified polystyrene 50 parts were dry-blended, kneaded, pelletized, and injection-molded to give a test piece showing melt flow rate 4.7 g/10 min.

- IT 121-44-8, Triethylamine, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (heat stabilizer; acidic group-substituted styrene polymers containing basic compds. with thermal stability and fluidity)
- RN 121-44-8 HCPLUS  
 CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



- IC ICM C08L025-04  
 ICS C08K005-17; C08K005-34  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38  
 ST acidic styrene polymer basic additive; thermal stability  
 acidic styrene polymer; heat resistance acidic styrene polymer;  
 carboxy substituted styrene polymer blend; dipyridine blend acidic  
 styrene polymer; fluidity acidic styrene polymer blend;  
 thermoplastic rubber modified polystyrene blend; sulfonate  
 substituted styrene polymer blend; phosphate substituted  
 styrene polymer blend; heterocycle basic additive acidic  
 polystyrene  
 IT Heat stabilizers  
 Molding of plastics and rubbers  
 (acidic group-substituted styrene polymers containing basic compds.  
 with thermal stability and fluidity)  
 IT 121-44-8, Triethylamine, uses 124-09-4,  
 Hexamethylenediamine, uses 504-24-5, 4-Aminopyridine 553-26-4,  
 4,4'-Dipyridine 17252-51-6, 4,4'-Trimethylenedipyridine  
 25265-76-3, Phenylenediamine 36250-05-2 108528-64-9  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (heat stabilizer; acidic group-substituted styrene  
 polymers containing basic compds. with thermal stability and  
 fluidity)

L46 ANSWER 8 OF 9 HCPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1983:490890 HCPLUS  
 DOCUMENT NUMBER: 99:90890  
 TITLE: Metalworking oil composition  
 INVENTOR(S): Kuwamoto, Hiroshi; Iwadoo, Shuichi; Okami, Yuji;  
 Nagamori, Hiroyuki; Nakagawa, Yasuhiro  
 PATENT ASSIGNEE(S): Kao Corp., Japan; Nippon Kokan K. K.  
 SOURCE: Ger. Offen., 35 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3241197	A1	19830623	DE 1982-3241197	
				198211 08
DE 3241197	C2	19940310		
JP 58104999	A	19830622	JP 1981-204623	
				198112 18
JP 62014599	B	19870402		
US 4693839	A	19870915	US 1982-430377	
				198209 30
GB 2115832	A	19830914	GB 1982-29418	
				198210 14
GB 2115832	B	19850904		
FR 2518566	A1	19830624	FR 1982-19929	
				198211 26
FR 2518566	B1	19890421		
PRIORITY APPLN. INFO.:			JP 1981-204623	A
				198112 18

OTHER SOURCE(S) : MARPAT 99:90890

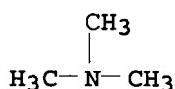
AB Metalworking lubricating oils for metal rolling contain 0.5-5.0 weight% quaternary ammonium polymer emulsion and shear **stabilizers** and extreme-pressure additives. The additives can be manufactured by homo- or copolymer. of quaternary ammonium monomers (e.g., CH<sub>2</sub>:C(Me)CONHCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>.MeCl) or by polycondensation of an amine or polyamine with alkylene dichlorides, epichlorohydrin or fatty acids.

IT 75-50-3D, reaction products with epichlorohydrin

RL: USES (Uses)  
(metalworking rolling of lubricating multifunctional additives)

RN 75-50-3 HCPLUS

CN Methanamine, N,N-dimethyl- (CA INDEX NAME)



IC C10M001-32; C10M003-26

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

ST metalworking rolling oil polymer **stabilizer**; quaternary ammonium polymer rolling oil

IT Fatty acids, compounds

RL: USES (Uses)  
(dimers, reaction products with phosphoric acid and diethylenetriamine, multifunctional additives, for metalworking rolling oils)

IT 75-09-2D, reaction products with hexamethylenetetramine

75-50-3D, reaction products with epichlorohydrin 79-09-4D, salts with dimethylaminopropyl methacrylamide-ethylenimine-sodium

acrylate-vinylpyrrolidine copolymer 100-44-7D, reaction products with tetramethylpropylenediamine 100-97-0D, reaction products with alkylene dichloride 106-89-8D, reaction products with trimethylamine 107-06-2D, reaction products with hexamethylenetetramine 111-40-0D, reaction products with phosphoric acid and dimer acids 1822-45-3D, reaction products with benzyl chloride 7664-38-2D, reaction products with polyamines 9002-98-6D, reaction products with phosphoric acid 9004-34-6D, quaternized ammonium salts 68039-13-4 86871-88-7 86871-89-8D, propionate salts 86872-05-1 86888-55-3 86888-56-4 86888-58-6

## RL: USES (Uses)

(metalworking rolling of lubricating multifunctional additives)

L46 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1968:31151 HCAPLUS

DOCUMENT NUMBER: 68:31151

TITLE: Paints and binders based on water glass ~  
solutions

INVENTOR(S): Brandt, Karl

SOURCE: Ger., 2 pp.

CODEN: GWXXAW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1254790	-----	19671123	DE 1957-B45555	195708 03

AB Stable alkali metal silicate-based paints and binders with improved H<sub>2</sub>O resistance, adhesivity, elasticity, and compatibility with organic and inorg. additives are prepared by addition of small amts. of organic amines having a considerable basicity and a boiling range >40° in combination with acids or in the form of salts. The salts of primary, secondary, or tertiary alkyl amines or their basic derivs. can be cautiously and rapidly added without impairing the stability of the aqueous silicate solution. Preferably, 0.5-3% amine salts in a 5-20% solution are mixed with alkali metal silicate solns. of 30-40°Be. The amine salts of H<sub>3</sub>PO<sub>4</sub> and of anhydrous phosphoric acids are especially compatible. It is advantageous for the consistency of the water glass solns. to add the amine salts in a somewhat basic form, i.e. with an excess of amine. The title products can also be obtained by spray drying the mixture to give a powder, which is dissolved before use. Thus, to 180 parts by volume of Na water glass of 33°Be., 1 of the following aqueous solns. was added with vigorous stirring: 10% HN(C<sub>2</sub>H<sub>4</sub>OH)<sub>2</sub> and 3.9% H<sub>3</sub>PO<sub>4</sub> 20; 10% Bu<sub>3</sub>N and 4.2% H<sub>3</sub>PO<sub>4</sub> 15; 10% (Me<sub>2</sub>COH)3N and 2.9% H<sub>4</sub>P<sub>2</sub>O<sub>7</sub> 15; 10% Et<sub>3</sub>N and 7.8% lactic acid 20; and 10% H<sub>2</sub>NC<sub>2</sub>H<sub>4</sub>OH and 8.5% H<sub>4</sub>P<sub>2</sub>O<sub>7</sub>, 25 parts by volume

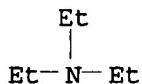
IT 121-44-8, uses and miscellaneous

## RL: USES (Uses)

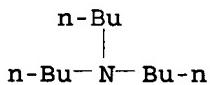
(coatings of sodium silicate containing lactic acid and, water-resistant)

RN 121-44-8 HCAPLUS

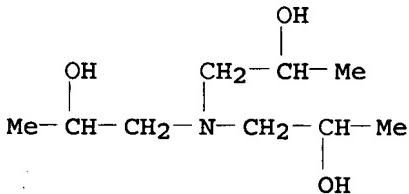
CN Ethanamine, N,N-diethyl- (CA INDEX NAME)



IT 102-82-9  
 RL: USES (Uses)  
 (coatings of sodium silicate containing phosphoric acid and, water-resistant)  
 RN 102-82-9 HCAPLUS  
 CN 1-Butanamine, N,N-dibutyl- (CA INDEX NAME)



IT 122-20-3  
 RL: USES (Uses)  
 (coatings of sodium silicate containing pyrophosphoric acid and, water-resistant)  
 RN 122-20-3 HCAPLUS  
 CN 2-Propanol, 1,1',1'''-nitrilotris- (CA INDEX NAME)



IC C09D  
 CC 42 (Coatings, Inks, and Related Products)  
 IT 121-44-8, uses and miscellaneous  
 RL: USES (Uses)  
 (coatings of sodium silicate containing lactic acid and, water-resistant)  
 IT 102-82-9 111-42-2, uses and miscellaneous  
 RL: USES (Uses)  
 (coatings of sodium silicate containing phosphoric acid and, water-resistant)  
 IT 122-20-3 141-43-5, uses and miscellaneous  
 RL: USES (Uses)  
 (coatings of sodium silicate containing pyrophosphoric acid and, water-resistant)

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